

Al-Corn Clean Fuel LLC.

Al-Corn has attached the following files to this submission.

Al-Corn Submission Letter

AL Corn PERMIT_Al-Corn Comments_2023-0221

Campbell Affidavit

MPCA AQDM-07 form_2021-09-24

22-0034 Dryer Feed Rates Technical Memo 11.30.22



February 21, 2023

Via Email: megan.dalbec@state.mn.us

Also Submitted Online at: <http://www.pca.state.mn.us/publiccomments>

Megan Dalbec
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Rd
Saint Paul, MN 55155

Re: In the Matter of the Intent to Reissue Air Individual Permit Major Amendment Permit
No. 03900028-102 to Al-Corn Clean Fuel LLC

Dear Ms. Dalbec:

Al-Corn Clean Fuel LLC ("Al-Corn"), the proposed Permittee in the above referenced matter, submits for filing the following documents related to Draft Air Individual Permit/Major Amendment, No. 03900028-102 as proposed by the Minnesota Pollution Control Agency ("MPCA"), Air Quality Permits Section, Industrial Division (the "Draft Permit"):

- An annotated version of the Draft Permit raising over 400 fact-specific, line-item disputes with the terms and conditions in the Draft Permit (the "Annotated Permit").
- The Affidavit of Colin Campbell.

Al-Corn is a local farmer-owned company that has been an important part of its community since it first opened the Claremont, Minnesota facility (the "Facility") in 1996. The Facility is an economic driver, supportive employer, and valued asset in a rural agricultural community that does not often receive significant investment. Moreover, Al-Corn's business is making the sustainable products, including transportation fuels and animal feed, that are critical if Minnesota is to meet its transportation greenhouse-gas-reduction goals and reduce tailpipe emissions.

Al-Corn can and wants to do even more for the Claremont community, area farmers, and Minnesota's economy. In October 2017, Al-Corn submitted an application for an amendment to its Air Individual Permit, requesting permission to construct new grain storage, product storage, and loadout facilities; to modify facility utilities; and to increase efficiency in production by 10 million gallons per year of ethanol. These improvements would allow Al-Corn to capitalize on market opportunities, provide more flexibility for farmers, and improve its operations.

Al-Corn has worked in good faith with MPCA during a permitting process that has now lasted more than five years. Indeed, Al-Corn engaged with MPCA staff in countless meetings and telephone calls and responded to numerous requests for information. This process required the devotion of significant staff time and the hiring of multiple technical experts and legal professionals at great expense. Al-Corn realizes that the permitting process can also require significant time and effort from MPCA. However, after more than five years, Al-Corn has grown frustrated with MPCA's undue delay, the result of which was a Draft Permit that Al-Corn did not get to review

prior to public notice, that is filled with unacceptable factual errors, and that puts Al-Corn at a competitive disadvantage to those companies that have fled to states regarded as more business-friendly.

With respect to public notice, Al-Corn was dismayed that the Draft Permit was released without MPCA meaningfully considering or substantively responding to many of Al-Corn's concerns, including the numerous non-controversial comments that Al-Corn felt MPCA had no legitimate basis to ignore. Despite not having access to a complete version of the Draft Permit, Al-Corn told MPCA of the significant and widespread problems with the Draft Permit *before* it was noticed for public comment. Al-Corn asked several times that the Draft Permit not be released until these problems were corrected or otherwise addressed, yet MPCA declined what we believe were very reasonable requests, intended to avoid unnecessary problems in the Draft Permit.

The result of MPCA's refusal was the release of a Draft Permit that contains at least 400 permit terms that are factually unsupported, technically incorrect, unsupported by regulations, and/or beyond MPCA's authority. Our expert, Colin Campbell,¹ has identified significant issues with the Draft Permit, including: MPCA's proposed emission limits that are not achievable; MPCA's failure to provide calculations or other evidence to support many permit terms; MPCA's inability to identify the authority underpinning many permit terms; a lack of technical support; and at least one permit term he describes as "based upon an entirely irrational presumption." Many, if not all, of these issues could have been avoided if MPCA would have collaborated with Al-Corn.

We also note that the Draft Permit, with attachments, is 613 pages and the ancillary Technical Support Document is another 563 pages. MPCA chose to create this incredibly prescriptive and massive air permit which regulates nearly every activity on site, down to the fuel use in the lawn mowers. These detailed and extensive requirements each have adjunct compliance demonstration, monitoring, recordkeeping, and reporting obligations, causing the permit to swell in length and complexity. This is unnecessary. Permits issued to facilities of similar size and complexity are often less than 100 pages in neighboring states, making them less prescriptive in detail. In fact, the MPCA itself has proposed less restrictive permitting obligations in analogous situations outside of the ethanol industry, as shown in Mr. Campbell's Affidavit.

At this juncture, despite the more than five years and the astronomical amount of human capital Al-Corn has invested in this permitting process, we have been met with a Draft Permit that is inaccurate, unsupported, and unworkable. The business community does not wait for Al-Corn to wade through these extended regulatory delays. The uncertainty of when we will receive a permit, and what will be in it, affects investments and our ability to respond to the market. Similar and even more complex projects are permitted in neighboring states in often less than 100 days. This places both Al-Corn and Minnesota at a competitive disadvantage. Indeed, other companies have "voted with their feet." These high-profile projects have announced that they are leaving the state due to long permitting durations and delay. Epitome Energy recently decided to move its planned \$400 million soybean-crushing plant over the border into North Dakota after waiting for MPCA permits. Huber Engineered Woods also recently abandoned plans for building a \$439 million OSB plant in Cohasset, Minnesota, citing permitting delays.

¹ Mr. Campbell provides technical support to state and local agencies in developing and administering their stationary source permitting programs. He also frequently teaches courses on NSR air permitting regulations for audiences, including representatives of state permitting authorities such as the MPCA and U.S. Environmental Protection Agency.

Al-Corn hopes that we can continue to work on resolving the issues identified in the attached documents through the comment process. However, Al-Corn is also simultaneously filing a Petition for a Contested Case Hearing to ensure that the issues with the Draft Permit identified above are appropriately scrutinized.

Please contact me directly if you have any questions.

Respectfully,

A handwritten signature in blue ink, appearing to read "Thomas Harwood", with a stylized flourish extending to the right.

Thomas Harwood, CEO
Al-Corn Clean Fuel LLC

**Draft
Air Individual Permit
Major Amendment
03900028-102**

Permittee: AI-Corn Clean Fuel LLC
Facility name: AI-Corn Clean Fuel LLC
797 5th St
Claremont, MN 55924-4706
Dodge County

Operating permit issuance date: March 3, 2017

Expiration date: March 3, 2022

* All Title I Conditions do not expire

Major Amendment: [Action Issue Date]

Permit characteristics: Federal; Part 70/ Limits to avoid NSR; Limits to avoid NSR

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

This permit amendment supersedes Air Emission Permit No. 03900028-101 and authorizes the Permittee to operate, construct and modify the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

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

Signature: ()

This document has been electronically signed.

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

for the Minnesota Pollution Control Agency

Table of Contents

	Page
1. Permit applications table	3
2. Where to send submittals.....	4
3. Facility description	5
4. Summary of subject items	6
5. Limits and other requirements	22
6. Submittal/action requirements	263
7. Appendices.....	347
Appendix A. Insignificant activities and general applicable requirements.....	347
Appendix B: Authorized Construction	348
Appendix C: Modeled Parameters for Permit Action 03900028-102.....	349
Appendix D: Subject Item Data for Flexible Permitting	356
Appendix E: Performance Test Summary and Stack Test Methods.....	363
Table E1: Performance Test Parameter Summary.....	363
Table E2: EPA Performance Test Methods	365
Appendix F: General Public Preclusion Plan	367
Appendix G: Fugitive Dust Control Plan.....	370
Appendix H: Maximum Contents of Denaturant	378
Appendix I. 40 CFR Part 60, Subpart A—General Provisions	379
Appendix J: Alternative Test Methods for VE or Opacity Determination for Intermittent Dust-Generating Operations.....	497
Appendix K: 40 CFR pt. 60, subp. VVa —Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	500
Appendix L. 40 CFR Part 63, Subpart A—General Provisions	527

Permit issued: [month day, year]
Permit expires: [month day, year]

1. Permit applications table

Permit applications:

Title description	Application receipt date	Action number
Part 70 Permit	04/01/2014	03900028-101
Administrative Amendment	08/29/2017	03900028-102
Major Amendment	10/13/2017 Supplemental information received on: 4/4/2018, 4/23/2019, 11/2/2020, 8/2/2021, 2/24/2022	03900028-102
Administrative Amendment	12/01/2017	03900028-102
Administrative Amendment	12/04/2017	03900028-102
Administrative Amendment	05/02/2018	03900028-102
Administrative Amendment	09/10/2018	03900028-102
Administrative Amendment	09/18/2018	03900028-102
Major Amendment	09/27/2019	03900028-102
Major Amendment	06/08/2020	03900028-102

Permit issued: [month day, year]
Permit expires: [month day, year]

03900028-102
Page 4 of 613

2. Where to send submittals

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

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

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

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

Or

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

3. Facility description

The Al-Corn Clean Fuel LLC (Facility) is located at 797 5th Street, Claremont, Dodge County, Minnesota.

Al-Corn Clean Fuel LLC is a fuel grade dry-mill ethanol plant located approximately one half mile west of Claremont, Minnesota, on Highway 14. The facility will use 1.4 million tons of corn per year to produce 140 million gallons of ~~fuel grade~~ ethanol (undenatured). The primary air emissions are volatile organic compounds (VOCs), particulate matter, nitrogen oxides (NOX), carbon monoxide (CO) and sulfur dioxide (SO₂). VOCs are emitted by fermentation, distillation, dried distiller's grains with solubles (DDGS), DDGS drying, ethanol loading, and VOC liquid storage and piping. Particulate matter is emitted by the DDGS drying, cooling and handling, grain receiving and handling, and vehicle traffic. NOX, SO₂ and CO are emitted by combustion sources. SO₂ is emitted from DDGS drying (sulfuric acid is ~~used to clean equipment and added to balance the pH~~). The facility will be limited to a production capacity of 140 MMGal/year of undenatured ethanol, 3.486 MMGal/year of denaturant, a throughput capacity of 1.4 million tons/year (tpy) of grain, and 440,000 tpy of DDGS.

The primary pieces of control equipment are fabric filters, a wet scrubber, a regenerative thermal oxidizer (RTO), a recuperative thermal oxidizer (TO), catalytic oxidizers, and two flares. The wet scrubber controls emissions from cook, fermentation and distillation units, while the TO and RTO are used to control emissions from distillation and drying units. Fabric filters control particulate matter emissions from the grain and DDGS handling and storage systems. ~~Catalytic oxidizers control CO emissions from diesel generators.~~ There are fourteen ~~large~~, internal floating roof and fixed roof tanks for ethanol, denaturant, and denatured ethanol storage. Flares are used to control VOC emissions from the facility's ethanol loading racks. Emissions from process valves and piping are controlled through an inspection and maintenance program.

The facility has accepted limits on the amounts of VOCs, particulate matter, NO_x and CO that could be emitted to the atmosphere, so that it is classified as a non-major source under the federal New Source Review program (40 CFR Section 52.21). The Permittee has also accepted limits to establish the facility as an area source of hazardous air pollutants (HAPs).

This permit action is a Major Amendment (IND20170002) that authorizes construction and operation of new equipment to support an increase in ethanol production at the facility. The new equipment includes loading racks (EQUI 281-EQUI 282), bins (EQUI 290, EQUI 304), a DDGS loadout leg (EQUI 283), conveyors (EQUI 284, EQUI 291-EQUI 295, EQUI 301-EQUI 303, EQUI 305-EQUI 307), several heaters (EQUI 285-EQUI 289) and DDGS silo discharge drags (EQUI 296-EQUI 298). VOC, particulate matter and HAPs are the main pollutants of concern with this permit action. The MPCA has a combined operating and construction permitting program under Minn. R. ch. 7007. Under that authority, this permit action authorizes construction.

This permit action also incorporates six administrative amendments and two major amendments. One administrative amendment (IND20170004) changes the facility ownership and name from Al-Corn Clean Fuel to Al-Corn Clean Fuel, LLC. The other five administrative amendments are performance test extensions. Revised performance test due dates have been incorporated into this permit action. Major amendment (IND20190004) revises emission limits on STRU 47, removes two non-emergency generators (EQUI 29/STRU 18 and EQUI 63/STRU 55), and revises several other requirements (revised capture efficiency at EQUI 224, revised STRU 37 VOC limit and revised modeling). Major amendment (IND20200001) adds new equipment for the production and shipment of 190 proof or 200 proof ethanol ~~for hand sanitizer or surface sanitizer under the COVID-19 Production of Hand Sanitizer for Donation or Sale guidance in April 2020.~~

4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 2: Al-Corn Clean Fuel LLC		
COMG 2: Facility Diesel Generators > 500 HP	has members	EQUI 60, EQUI 61, EQUI 62
COMG 3: HAPs Limit Group	has members	EQUI 12, EQUI 31, EQUI 32, EQUI 33, EQUI 34, EQUI 35, EQUI 36, EQUI 37, EQUI 42, EQUI 43, EQUI 44, EQUI 45, EQUI 46, EQUI 47, EQUI 54, EQUI 59, EQUI 174, EQUI 175, EQUI 176, EQUI 177, EQUI 178, EQUI 218, EQUI 219, EQUI 231, EQUI 232, EQUI 233, EQUI 236, EQUI 237, EQUI 238, EQUI 240, EQUI 241, EQUI 242, EQUI 284, EQUI 347
COMG 7: Denaturant Tanks subject to Minn. R. 7011.1505	has members	EQUI 85, EQUI 86, EQUI 248
COMG 10: Combustion turbine and duct burner	has members	EQUI 225, EQUI 226
COMG 13: Kb Tanks w/ Double-seal System	has members	EQUI 83, EQUI 85, EQUI 246, EQUI 247, EQUI 248, EQUI 353, EQUI 354
COMG 14: Emission sources subject to Minn. R. 7011.0715 (IPER)	has members	EQUI 84, EQUI 87, EQUI 88, EQUI 89, EQUI 249, EQUI 320,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 351, EQUI 352
COMG 17: Steam Generating Unit	has members	EQUI 308, TREA 6
COMG 19: DDGS Drying and Cooling	has members	EQUI 12, EQUI 42, EQUI 43, EQUI 44, EQUI 45, EQUI 46, EQUI 47, EQUI 54, EQUI 59, EQUI 216, EQUI 309, EQUI 312, EQUI 314, EQUI 315, EQUI 316, EQUI 317, STRU 24, STRU 46
COMG 20: Grain Milling and Flour Conveyance	has members	EQUI 192, EQUI 193, EQUI 194, EQUI 195, EQUI 196, EQUI 197, EQUI 198, EQUI 199, EQUI 200, EQUI 201, EQUI 202, EQUI 203, EQUI 204, EQUI 292, EQUI 293, EQUI 294, EQUI 295, EQUI 307, STRU 39, STRU 43
COMG 21: Distillation Drying and Cooling	has members	EQUI 218, EQUI 219, EQUI 231, EQUI 284, EQUI 309, EQUI 313, EQUI 314, EQUI 315, EQUI 318,

SI ID: Description	Relationship type	Related SI ID: Description
		STRU 47, STRU 78
EQUI 12: Centrifuges	is monitored by	EQUI 323: Centrifuge 1 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-601-1)
EQUI 12: Centrifuges	is monitored by	EQUI 324: Centrifuge 2 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-602-1)
EQUI 12: Centrifuges	is monitored by	EQUI 325: Centrifuge 3 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-603-1)
EQUI 12: Centrifuges	is monitored by	EQUI 326: Centrifuge 4 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-604-1)
EQUI 12: Centrifuges	sends to	STRU 24: TO/HRSG
EQUI 12: Centrifuges	is controlled	TREA 6:

SI ID: Description	Relationship type	Related SI ID: Description
	by	Thermal Oxidizer
EQUI 28: Office Generator	sends to	STRU 17: Office Generator
EQUI 31: Fermenter #1	sends to	STRU 37: Fermentation System Scrubber
EQUI 31: Fermenter #1	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 31: Fermenter #1	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 32: Fermenter #2	sends to	STRU 37: Fermentation System Scrubber
EQUI 32: Fermenter #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 32: Fermenter #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 33: Fermenter #3	sends to	STRU 37: Fermentation System Scrubber
EQUI 33: Fermenter #3	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 33: Fermenter #3	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 34: Cook Water Tank	sends to	STRU 37: Fermentation System Scrubber
EQUI 34: Cook Water Tank	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 34: Cook Water Tank	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 35: Fermenter #4	sends to	STRU 37:

SI ID: Description	Relationship type	Related SI ID: Description
		Fermentation System Scrubber
EQUI 35: Fermenter #4	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 35: Fermenter #4	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 36: Fermenter #5	sends to	STRU 37: Fermentation System Scrubber
EQUI 36: Fermenter #5	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 36: Fermenter #5	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 37: Fermenter #6	sends to	STRU 37: Fermentation System Scrubber
EQUI 37: Fermenter #6	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 37: Fermenter #6	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 42: Molecular Sieve #2	is monitored by	EQUI 361: 400 DDE Production
EQUI 42: Molecular Sieve #2	sends to	STRU 37: Fermentation System Scrubber
EQUI 42: Molecular Sieve #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 42: Molecular Sieve #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 43: Evaporator #2	sends to	STRU 37: Fermentation System Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 43: Evaporator #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 43: Evaporator #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 44: Rectifier #2	sends to	STRU 37: Fermentation System Scrubber
EQUI 44: Rectifier #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 44: Rectifier #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 45: Beer Stripper #2	sends to	STRU 37: Fermentation System Scrubber
EQUI 45: Beer Stripper #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 45: Beer Stripper #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 46: Side Stripper #2	sends to	STRU 37: Fermentation System Scrubber
EQUI 46: Side Stripper #2	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 46: Side Stripper #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 47: DDGS Dryer #2 with Multiclone (SV 012)	sends to	STRU 24: TO/HRSG
EQUI 47: DDGS Dryer #2 with Multiclone (SV 012)	is controlled by	TREA 6: Thermal Oxidizer
EQUI 54: DDGS Dryer #1 with Multiclone (SV012)	sends to	STRU 24: TO/HRSG
EQUI 54: DDGS Dryer	is controlled	TREA 6:

SI ID: Description	Relationship type	Related SI ID: Description
#1 with Multiclone (SV012)	by	Thermal Oxidizer
EQUI 59: Evaporator #1	sends to	STRU 37: Fermentation System Scrubber
EQUI 59: Evaporator #1	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 59: Evaporator #1	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 60: Dryer #1 (Dryer B) Load Generator	sends to	STRU 19: Dryer Load Generator
EQUI 60: Dryer #1 (Dryer B) Load Generator	is controlled by	TREA 28: Dryer #1 (Dryer B) Generator Catalyst
EQUI 61: Process Generator	sends to	STRU 54: Process Generator
EQUI 61: Process Generator	is controlled by	TREA 30: Process Generator Catalyst
EQUI 62: Cooling Tower Generator	sends to	STRU 21: Cooling Tower Generator
EQUI 62: Cooling Tower Generator	is controlled by	TREA 29: Cooling Tower Generator Catalyst
EQUI 73: Ethanol Loading Rack #2	sends to	STRU 10: Ethanol Loading Rack Flare
EQUI 73: Ethanol Loading Rack #2	is controlled by	TREA 3: Flaring
EQUI 83: 200 proof ethanol (1893 cu m) / TK006 / T-810		
EQUI 84: 190 Proof Ethanol (150.4 cu m) / TK001 / T-801		
EQUI 85: Denaturant (150.4 cu m) / TK002 / T-802		
EQUI 86: Denaturant		

SI ID: Description	Relationship type	Related SI ID: Description
(68.1 cu m) / TK003 / T-805		
EQUI 87: 200 proof Ethanol (454.3 cu m) / TK004 / T803		
EQUI 88: 200 proof Ethanol (454.3 cu m) / TK005 / T-804		
EQUI 89: Corrosion Inhibitor (7.57 cu m) / TK007 / T-868		
EQUI 174: Fermenter #7	sends to	STRU 37: Fermentation System Scrubber
EQUI 174: Fermenter #7	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 174: Fermenter #7	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 175: Fermenter #8	sends to	STRU 37: Fermentation System Scrubber
EQUI 175: Fermenter #8	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 175: Fermenter #8	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 176: Fermenter #9	sends to	STRU 37: Fermentation System Scrubber
EQUI 176: Fermenter #9	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 176: Fermenter #9	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 177: Fermenter #10	sends to	STRU 37: Fermentation System Scrubber
EQUI 177: Fermenter #10	is controlled by	TREA 16: Fermentation

SI ID: Description	Relationship type	Related SI ID: Description
		System Scrubber
EQUI 177: Fermenter #10	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 178: Beerwell	is monitored by	EQUI 328: Beerwell Output Rate to Distillation (FT-132001-1)
EQUI 178: Beerwell	is monitored by	EQUI 384: Beerwell Output Rate to Distillation (FT-4305-1)
EQUI 178: Beerwell	sends to	STRU 37: Fermentation System Scrubber
EQUI 178: Beerwell	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 178: Beerwell	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 179: Dump Pit #1	sends to	STRU 38: Grain Handling Baghouse
EQUI 179: Dump Pit #1	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 180: Dump Pit #2	sends to	STRU 38: Grain Handling Baghouse
EQUI 180: Dump Pit #2	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 181: Dump Pit #3	sends to	STRU 38: Grain Handling Baghouse
EQUI 181: Dump Pit #3	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 182: Pit Conveyor #1	sends to	STRU 38: Grain Handling Baghouse
EQUI 182: Pit Conveyor #1	is controlled by	TREA 17: Grain Handling Baghouse

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 183: Pit Conveyor #2	sends to	STRU 38: Grain Handling Baghouse
EQUI 183: Pit Conveyor #2	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 184: Pit Conveyor #3	sends to	STRU 38: Grain Handling Baghouse
EQUI 184: Pit Conveyor #3	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 185: Receiving Elevator Leg #1	sends to	STRU 38: Grain Handling Baghouse
EQUI 185: Receiving Elevator Leg #1	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 187: Receiving Transfer Conveyor #1	sends to	STRU 38: Grain Handling Baghouse
EQUI 187: Receiving Transfer Conveyor #1	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 188: Receiving Transfer Conveyor #2	sends to	STRU 38: Grain Handling Baghouse
EQUI 188: Receiving Transfer Conveyor #2	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 189: Bin Fill Conveyor	sends to	STRU 38: Grain Handling Baghouse
EQUI 189: Bin Fill Conveyor	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 190: Corn Bin #1	sends to	STRU 38: Grain Handling Baghouse
EQUI 190: Corn Bin #1	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 191: Corn Bin #2	sends to	STRU 38: Grain Handling Baghouse
EQUI 191: Corn Bin #2	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 192: Reclaim Conveyor #1	sends to	STRU 39: Grain Milling

SI ID: Description	Relationship type	Related SI ID: Description
		Baghouse
EQUI 192: Reclaim Conveyor #1	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 193: Reclaim Conveyor #2	sends to	STRU 39: Grain Milling Baghouse
EQUI 193: Reclaim Conveyor #2	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 194: Hammermill Feed Leg	sends to	STRU 39: Grain Milling Baghouse
EQUI 194: Hammermill Feed Leg	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 195: Feed Conveyor #1	sends to	STRU 43: Corn Flour Conveyance Aspiration
EQUI 195: Feed Conveyor #1	is controlled by	TREA 21: Corn Flour Conveyance Vent
EQUI 196: Scalper Surge Bin	sends to	STRU 39: Grain Milling Baghouse
EQUI 196: Scalper Surge Bin	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	is monitored by	EQUI 331: Grain Throughput to Milling (ST-1321)
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	is monitored by	EQUI 332: Grain Throughput to Milling (ST-1322)
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	is monitored by	EQUI 333: Grain Throughput to Milling (TS-1323)
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	is monitored by	EQUI 334: Grain Throughput to Milling (TS-1324)

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	sends to	STRU 39: Grain Milling Baghouse
EQUI 197: Hammermill Surge Bin with 4 Rotary Feeders	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 198: Scalper #1	sends to	STRU 39: Grain Milling Baghouse
EQUI 198: Scalper #1	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 199: Scalper #2	sends to	STRU 39: Grain Milling Baghouse
EQUI 199: Scalper #2	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 200: Hammermill #1	sends to	STRU 39: Grain Milling Baghouse
EQUI 200: Hammermill #1	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 201: Hammermill #2	sends to	STRU 39: Grain Milling Baghouse
EQUI 201: Hammermill #2	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 202: Hammermill #3	sends to	STRU 39: Grain Milling Baghouse
EQUI 202: Hammermill #3	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 203: Hammermill #4	sends to	STRU 39: Grain Milling Baghouse
EQUI 203: Hammermill #4	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 204: Hammermill Collection	sends to	STRU 39: Grain Milling Baghouse
EQUI 204: Hammermill Collection	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 205: DDGS Bulkweigher	sends to	STRU 40: DDGS Loadout

SI ID: Description	Relationship type	Related SI ID: Description
		Baghouse
EQUI 205: DDGS Bulkweigher	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 206: DDGS Conveyor #1	sends to	STRU 40: DDGS Loadout Baghouse
EQUI 206: DDGS Conveyor #1	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 207: DDGS Conveyor #2	sends to	STRU 40: DDGS Loadout Baghouse
EQUI 207: DDGS Conveyor #2	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 208: DDGS Dust Conveyance Cyclone	sends to	STRU 40: DDGS Loadout Baghouse
EQUI 208: DDGS Dust Conveyance Cyclone	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 209: DDGS Loadout (truck)	sends to	STRU 40: DDGS Loadout Baghouse
EQUI 209: DDGS Loadout (truck)	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 210: DDGS Loadout (railcar)	sends to	STRU 40: DDGS Loadout Baghouse
EQUI 210: DDGS Loadout (railcar)	is controlled by	TREA 19: DDGS Loadout Baghouse
EQUI 211: Emergency Fire Pump Engine	sends to	STRU 41: Emergency Fire Pump
EQUI 214: DDGS Fill Leg	sends to	STRU 45: DDGS Storage Silo Fill Vent #1
EQUI 214: DDGS Fill Leg	is controlled by	TREA 23: DDGS Storage Silo Fill Vent #1
EQUI 215: DDGS Bin #1	sends to	STRU 45: DDGS Storage Silo Fill Vent #1
EQUI 215: DDGS Bin #1	is controlled by	TREA 23: DDGS Storage Silo Fill Vent #1
EQUI 216: DDGS	sends to	STRU 46: DDGS

SI ID: Description	Relationship type	Related SI ID: Description
Cooling Cyclone #1		Cooling Cyclone
EQUI 218: DDGS Dryer (with Multiclone)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 218: DDGS Dryer (with Multiclone)	is controlled by	TREA 25: RTO
EQUI 219: Fluid Bed Cooler	sends to	STRU 78: Fluid Bed Cooler with Baghouse
EQUI 219: Fluid Bed Cooler	is controlled by	TREA 37: Fluid Bed Cooler with Baghouse
EQUI 221: Centrifuge Vent Fan		
EQUI 222: DDGS Bin #2	sends to	STRU 48: DDGS Storage Silo Fill Vent #2
EQUI 222: DDGS Bin #2	is controlled by	TREA 26: DDGS Storage Silo Fill Vent #2
EQUI 223: Grain Receiving - Uncaptured emissions		
EQUI 224: DDGS Loadout - Uncaptured emissions		
EQUI 225: Combustion Turbine	sends to	STRU 49: CHP Dump Stack
EQUI 225: Combustion Turbine	sends to	STRU 52: Combined Turbine/Burner Stack
EQUI 226: Duct Burner/HRSG	sends to	STRU 52: Combined Turbine/Burner Stack
EQUI 228: Loading Rack #3	sends to	STRU 36: Ethanol Loading Rack Flare #2
EQUI 228: Loading Rack #3	is controlled by	TREA 15: Ethanol Loading Rack Flare #2
EQUI 229: Loading Rack #4	sends to	STRU 36: Ethanol Loading Rack Flare #2
EQUI 229: Loading Rack #4	is controlled by	TREA 15:

SI ID: Description	Relationship type	Related SI ID: Description
Rack #4	by	Ethanol Loading Rack Flare #2
EQUI 231: Centrifuges	is monitored by	EQUI 337: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5105-1)
EQUI 231: Centrifuges	is monitored by	EQUI 338: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5106-1)
EQUI 231: Centrifuges	is monitored by	EQUI 339: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5107-1)
EQUI 231: Centrifuges	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 231: Centrifuges	is controlled by	TREA 25: RTO
EQUI 232: Liquefaction Tank	is monitored by	EQUI 327: Liquefaction Flow Rate to Ferns (FT-2310-1)
EQUI 232: Liquefaction Tank	sends to	STRU 37: Fermentation System Scrubber
EQUI 232: Liquefaction Tank	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 232: Liquefaction Tank	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 233: Slurry Blender / Slurry Tank	sends to	STRU 37: Fermentation System Scrubber
EQUI 233: Slurry Blender / Slurry Tank	is controlled by	TREA 16: Fermentation System

SI ID: Description	Relationship type	Related SI ID: Description
		Scrubber
EQUI 233: Slurry Blender / Slurry Tank	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 236: Yeast Propagation Tank #1	sends to	STRU 37: Fermentation System Scrubber
EQUI 236: Yeast Propagation Tank #1	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 236: Yeast Propagation Tank #1	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 237: Yeast Propagation Tank #2	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 238: Beer Stripper #3	sends to	STRU 37: Fermentation System Scrubber
EQUI 238: Beer Stripper #3	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 238: Beer Stripper #3	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 240: Rectifier #3	sends to	STRU 37: Fermentation System Scrubber
EQUI 240: Rectifier #3	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 240: Rectifier #3	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 241: Evaporators #3	sends to	STRU 37: Fermentation System Scrubber
EQUI 241: Evaporators #3	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 241: Evaporators #3	is controlled by	TREA 42: Scrubber pre-

SI ID: Description	Relationship type	Related SI ID: Description
		condenser
EQUI 242: Molecular Sieves #3	is monitored by	EQUI 362: 4000 DDE Production
EQUI 242: Molecular Sieves #3	sends to	STRU 37: Fermentation System Scrubber
EQUI 242: Molecular Sieves #3	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 242: Molecular Sieves #3	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 246: Ethanol / 2000000 gal / TK011 / T-7003		
EQUI 247: Ethanol / 2000000 gal / TK012 / T-7004		
EQUI 248: Gasoline, Non-Oxygenated / 100000 gal / TK013 / T-7250		
EQUI 249: Fuel additive / 3000 gal / TK014 / T-7050		
EQUI 281: Loading Rack #5	sends to	STRU 36: Ethanol Loading Rack Flare #2
EQUI 281: Loading Rack #5	is controlled by	TREA 15: Ethanol Loading Rack Flare #2
EQUI 282: Loading Rack #6	sends to	STRU 36: Ethanol Loading Rack Flare #2
EQUI 282: Loading Rack #6	is controlled by	TREA 15: Ethanol Loading Rack Flare #2
EQUI 283: DDGS Loadout Leg	sends to	STRU 77: DDGS Loadout Leg Filter
EQUI 283: DDGS Loadout Leg	is controlled by	TREA 36: DDGS Loadout Leg Filter

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 284: DDGS Conveyor	sends to	STRU 78: Fluid Bed Cooler with Baghouse
EQUI 284: DDGS Conveyor	is controlled by	TREA 37: Fluid Bed Cooler with Baghouse
EQUI 285: Regulation Station	sends to	STRU 79: Regulation Station
EQUI 286: Unit Heater #1	sends to	STRU 101: Unit Heater #1
EQUI 287: Unit Heater #2	sends to	STRU 102: Unit Heater #2
EQUI 288: Unit Heater #3	sends to	STRU 103: Unit Heater #3
EQUI 289: Unit Heater #4	sends to	STRU 104: Unit Heater #4
EQUI 290: DDGS Bin #3	sends to	STRU 84: DDGS Storage Silo Fill Vent #3
EQUI 290: DDGS Bin #3	is controlled by	TREA 38: DDGS Storage Silo Fill Vent #3
EQUI 291: DDGS Conveyor #1	sends to	STRU 85: DDGS Conveying
EQUI 291: DDGS Conveyor #1	is controlled by	TREA 39: DDGS Conveying Baghouse
EQUI 292: Feed Conveyor #2	sends to	STRU 43: Corn Flour Conveyance Aspiration
EQUI 292: Feed Conveyor #2	is controlled by	TREA 21: Corn Flour Conveyance Vent
EQUI 293: Feed Conveyor #3	sends to	STRU 43: Corn Flour Conveyance Aspiration
EQUI 293: Feed Conveyor #3	is controlled by	TREA 21: Corn Flour Conveyance Vent
EQUI 294: Feed Conveyor #4	sends to	STRU 43: Corn Flour Conveyance Aspiration
EQUI 294: Feed Conveyor #4	is controlled by	TREA 21: Corn Flour

SI ID: Description	Relationship type	Related SI ID: Description
		Conveyance Vent
EQUI 295: Feed Conveyor #5	sends to	STRU 43: Corn Flour Conveyance Aspiration
EQUI 295: Feed Conveyor #5	is controlled by	TREA 21: Corn Flour Conveyance Vent
EQUI 296: DDGS Silo Discharge Drag #1	sends to	STRU 77: DDGS Loadout Leg Filter
EQUI 296: DDGS Silo Discharge Drag #1	is controlled by	TREA 36: DDGS Loadout Leg Filter
EQUI 297: DDGS Silo Discharge Drag #2	sends to	STRU 77: DDGS Loadout Leg Filter
EQUI 297: DDGS Silo Discharge Drag #2	is controlled by	TREA 36: DDGS Loadout Leg Filter
EQUI 298: DDGS Silo Discharge Drag #3	sends to	STRU 77: DDGS Loadout Leg Filter
EQUI 298: DDGS Silo Discharge Drag #3	is controlled by	TREA 36: DDGS Loadout Leg Filter
EQUI 301: DDGS Conveyor #2	sends to	STRU 85: DDGS Conveying
EQUI 301: DDGS Conveyor #2	is controlled by	TREA 39: DDGS Conveying Baghouse
EQUI 302: DDGS Conveyor #3	sends to	STRU 85: DDGS Conveying
EQUI 302: DDGS Conveyor #3	is controlled by	TREA 39: DDGS Conveying Baghouse
EQUI 303: DDGS Conveyor #4	sends to	STRU 85: DDGS Conveying
EQUI 303: DDGS Conveyor #4	is controlled by	TREA 39: DDGS Conveying Baghouse
EQUI 304: Grain Receiving Bin #3	sends to	STRU 38: Grain Handling Baghouse
EQUI 304: Grain Receiving Bin #3	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 305: Grain Bin Fill	sends to	STRU 38: Grain

SI ID: Description	Relationship type	Related SI ID: Description
Conveyor #2		Handling Baghouse
EQUI 305: Grain Bin Fill Conveyor #2	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 306: Grain Bin Fill Conveyor #3	sends to	STRU 38: Grain Handling Baghouse
EQUI 306: Grain Bin Fill Conveyor #3	is controlled by	TREA 17: Grain Handling Baghouse
EQUI 307: Reclaim Conveyor #3	sends to	STRU 39: Grain Milling Baghouse
EQUI 307: Reclaim Conveyor #3	is controlled by	TREA 18: Grain Milling Baghouse
EQUI 308: HRSG		
EQUI 309: Thin Stillage Tank (T-501)	sends to	STRU 24: TO/HRSG
EQUI 309: Thin Stillage Tank (T-501)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 309: Thin Stillage Tank (T-501)	sends to	STRU 93: Thin Stillage Tank (T-501)
EQUI 309: Thin Stillage Tank (T-501)	is controlled by	TREA 6: Thermal Oxidizer
EQUI 309: Thin Stillage Tank (T-501)	is controlled by	TREA 25: RTO
EQUI 310: Whole Stillage Tank (T-5001)	sends to	STRU 37: Fermentation System Scrubber
EQUI 310: Whole Stillage Tank (T-5001)	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 310: Whole Stillage Tank (T-5001)	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 312: Syrup Tank (T-620)	is monitored by	EQUI 321: Syrup Feed Rate Prior to Dryers A-B, TO/HRSG, DDGS Cooling Cyclone, and DDGS

SI ID: Description	Relationship type	Related SI ID: Description
		Conveying Baghouse (FT-505-1)
EQUI 312: Syrup Tank (T-620)	is monitored by	EQUI 322: Syrup Feed Rate Prior to Dryers A-B, TO/HRSG, DDGS Cooling Cyclone, and DDGS Conveying Baghouse (FT-720-1)
EQUI 312: Syrup Tank (T-620)	sends to	STRU 24: TO/HRSG
EQUI 312: Syrup Tank (T-620)	sends to	STRU 96: Syrup Tank (T-620)
EQUI 312: Syrup Tank (T-620)	is controlled by	TREA 6: Thermal Oxidizer
EQUI 313: Syrup Tank (T-5305)	is monitored by	EQUI 336: Syrup Feed Rate to Dryer C / RTO (FT-5305-1)
EQUI 313: Syrup Tank (T-5305)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 313: Syrup Tank (T-5305)	sends to	STRU 97: Syrup Tank (T-5305)
EQUI 314: Oil Free Syrup Receiver Tank (T-5201)	sends to	STRU 24: TO/HRSG
EQUI 314: Oil Free Syrup Receiver Tank (T-5201)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 314: Oil Free Syrup Receiver Tank (T-5201)	sends to	STRU 98: Oil Free Syrup Receiver Tank (T-5201)
EQUI 314: Oil Free Syrup Receiver Tank (T-5201)	is controlled by	TREA 6: Thermal Oxidizer
EQUI 314: Oil Free Syrup Receiver Tank (T-5201)	is controlled by	TREA 25: RTO
EQUI 315: Oil Centrifuge Feed Tank	sends to	STRU 24: TO/HRSG

SI ID: Description	Relationship type	Related SI ID: Description
(T-5301)		
EQUI 315: Oil Centrifuge Feed Tank (T-5301)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 315: Oil Centrifuge Feed Tank (T-5301)	sends to	STRU 99: Oil Centrifuge Feed Tank (T-5301)
EQUI 316: Heavy Phase Tank (T-5310)	sends to	STRU 24: TO/HRSG
EQUI 316: Heavy Phase Tank (T-5310)	sends to	STRU 100: Heavy Phase Tank (T-5310)
EQUI 316: Heavy Phase Tank (T-5310)	is controlled by	TREA 6: Thermal Oxidizer
EQUI 317: Centrate Tank #1	sends to	STRU 24: TO/HRSG
EQUI 317: Centrate Tank #1	is controlled by	TREA 6: Thermal Oxidizer
EQUI 318: Centrate Tank #2 (T-5110)	sends to	STRU 47: Distillation/Dryers/RTO
EQUI 318: Centrate Tank #2 (T-5110)	is controlled by	TREA 25: RTO
EQUI 319: Uncaptured Loadout		
EQUI 320: Ethanol / 120000 gal / TK008		
EQUI 321: Syrup Feed Rate Prior to Dryers A-B, TO/HRSG, DDGS Cooling Cyclone, and DDGS Conveying Baghouse (FT-505-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 322: Syrup Feed Rate Prior to Dryers A-B, TO/HRSG, DDGS Cooling Cyclone, and DDGS Conveying Baghouse (FT-720-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 323: Centrifuge 1 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-601-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 324: Centrifuge 2 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-602-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 325: Centrifuge 3 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-603-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 326: Centrifuge 4 Feed Rate Prior to Dryers A-B, TO/HRSG;Centrifuge Feed Rate to DDGS Cooling Cyclone (FT-604-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 327: Liquefaction Flow Rate to Firms (FT-2310-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 328: Beerwell Output Rate to Distillation (FT-132001-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 331: Grain Throughput to Milling (ST-1321)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 332: Grain Throughput to Milling (ST-1322)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 333: Grain Throughput to Milling (TS-1323)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 334: Grain Throughput to Milling	sends to	EQUI 365: Rockwell

SI ID: Description	Relationship type	Related SI ID: Description
(TS-1324)		Automation Factory Talk Historian
EQUI 336: Syrup Feed Rate to Dryer C / RTO (FT-5305-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 337: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5105-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 338: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5106-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 339: Centrifuge Feed Rate Prior to Dryer C / RTO (FT-5107-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 347: IGE Molecular Sieve #4	sends to	STRU 37: Fermentation System Scrubber
EQUI 347: IGE Molecular Sieve #4	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 347: IGE Molecular Sieve #4	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 351: IGE 60K Day Tank 1		
EQUI 352: IGE 60K Day Tank 2		
EQUI 353: IGE 300K Storage Tank 1		
EQUI 354: IGE 300K Storage Tank 2		
EQUI 355: IGE Rail Loadout Uncaptured Emissions		
EQUI 356: IGE Truck Loadout Uncaptured Emissions	is monitored by	EQUI 364: Truck Industrial Grade Ethanol Loadout

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 361: 400 DDE Production	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 362: 4000 DDE Production	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 363: Industrial Grade Ethanol Production	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 364: Truck Industrial Grade Ethanol Loadout	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
EQUI 365: Rockwell Automation Factory Talk Historian		
EQUI 366: IGE Distillation Column A	is monitored by	EQUI 363: Industrial Grade Ethanol Production
EQUI 366: IGE Distillation Column A	sends to	STRU 37: Fermentation System Scrubber
EQUI 366: IGE Distillation Column A	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 366: IGE Distillation Column A	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 367: IGE Distillation Column B	is monitored by	EQUI 363: Industrial Grade Ethanol Production
EQUI 367: IGE Distillation Column B	sends to	STRU 37: Fermentation System Scrubber
EQUI 367: IGE Distillation Column B	is controlled by	TREA 16: Fermentation System Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 367: IGE Distillation Column B	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 368: IGE Distillation Column C	is monitored by	EQUI 363: Industrial Grade Ethanol Production
EQUI 368: IGE Distillation Column C	sends to	STRU 37: Fermentation System Scrubber
EQUI 368: IGE Distillation Column C	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 368: IGE Distillation Column C	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 369: Pre-Condenser	sends to	STRU 37: Fermentation System Scrubber
EQUI 369: Pre-Condenser	is controlled by	TREA 16: Fermentation System Scrubber
EQUI 369: Pre-Condenser	is controlled by	TREA 42: Scrubber pre-condenser
EQUI 382: 500 Gallon Gasoline Tank		
EQUI 383: 500 Gallon Gasoline Tank Nozzle		
EQUI 384: Beerwell Output Rate to Distillation (FT-4305-1)	sends to	EQUI 365: Rockwell Automation Factory Talk Historian
FUGI 3: Truck Traffic on Paved Roads - Paved Road		
FUGI 4: Cooling Towers - Cooling Tower		
FUGI 5: Valves, Flanges, and Seals (tank leaks) - Equipment Leaks		
FUGI 7: Cooling Towers		
FUGI 12: Fermentation gas/vapor component		

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

SI ID: Description	Relationship type	Related SI ID: Description
leaks		
FUGI 13: Unpaved roads at facility		
STRU 1: Offices		
STRU 4: Process Building		
STRU 10: Ethanol Loading Rack Flare		
STRU 17: Office Generator		
STRU 19: Dryer Load Generator		
STRU 21: Cooling Tower Generator		
STRU 24: TO/HRSG		
STRU 36: Ethanol Loading Rack Flare #2		
STRU 37: Fermentation System Scrubber		
STRU 38: Grain Handling Baghouse		
STRU 39: Grain Milling Baghouse		
STRU 40: DDGS Loadout Baghouse		
STRU 41: Emergency Fire Pump		
STRU 43: Corn Flour Conveyance Aspiration		
STRU 45: DDGS Storage Silo Fill Vent #1		
STRU 46: DDGS Cooling Cyclone		
STRU 47: Distillation/Dryers/RT O		
STRU 48: DDGS Storage Silo Fill Vent #2		
STRU 49: CHP Dump Stack		
STRU 52: Combined Turbine/Burner Stack		
STRU 53: Dryer/RTO Bypass Stack (only used in emergency situations)		
STRU 54: Process Generator		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 77: DDGS Loadout Leg Filter		
STRU 78: Fluid Bed Cooler with Baghouse		
STRU 79: Regulation Station		
STRU 84: DDGS Storage Silo Fill Vent #3		
STRU 85: DDGS Conveying		
STRU 86: Grain Receiving/DDGS Loadout		
STRU 87: Hammermilling Building		
STRU 88: Utility Building		
STRU 89: BLD3 (Combined old BG005-BG006)		
STRU 90: Firepump Building		
STRU 91: Centrifuge Building		
STRU 92: DDE1 Building		
STRU 93: Thin Stillage Tank (T-501)		
STRU 96: Syrup Tank (T-620)		
STRU 97: Syrup Tank (T-5305)		
STRU 98: Oil Free Syrup Receiver Tank (T-5201)		
STRU 99: Oil Centrifuge Feed Tank (T-5301)		
STRU 100: Heavy Phase Tank (T-5310)		
STRU 101: Unit Heater #1		
STRU 102: Unit Heater #2		
STRU 103: Unit Heater #3		
STRU 104: Unit Heater #4		

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

SI ID: Description	Relationship type	Related SI ID: Description
TREA 3: Flaring		
TREA 6: Thermal Oxidizer		
TREA 15: Ethanol Loading Rack Flare #2		
TREA 16: Fermentation System Scrubber		
TREA 17: Grain Handling Baghouse		
TREA 18: Grain Milling Baghouse		
TREA 19: DDGS Loadout Baghouse		
TREA 21: Corn Flour Conveyance Vent		
TREA 23: DDGS Storage Silo Fill Vent #1		
TREA 25: RTO		
TREA 26: DDGS Storage Silo Fill Vent #2		
TREA 28: Dryer #1 (Dryer B) Generator Catalyst		
TREA 29: Cooling Tower Generator Catalyst		
TREA 30: Process Generator Catalyst		
TREA 36: DDGS Loadout Leg Filter		
TREA 37: Fluid Bed Cooler with Baghouse		
TREA 38: DDGS Storage Silo Fill Vent #3		
TREA 39: DDGS Conveying Baghouse		
TREA 42: Scrubber pre-condenser	is controlled in series by	TREA 16: Fermentation System Scrubber

Permit Issued: [month day, year]
Permit Expires: [month day, year]

03900028-102
Page 21 of 613

5. Limits and other requirements

Requirement number	Requirement and citation
TFAC 2	Al-Corn Clean Fuel LLC
5.1.1	The Permittee shall limit Production <= 140.000 million gallons per year 12-month rolling sum of undenatured ethanol throughput 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 source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.2	The Permittee shall limit Process Throughput <= 1.400 million tons per year 12-month rolling sum grain received to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.1.3	The Permittee shall limit Process Throughput <= 440,000 tons per year 12-month rolling sum of dry distillers grain with solubles (DDGS), to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. The Permittee is not allowed to adjust the weight of DDGS in the DDGS loadout equipment, as identified in the loadout receipts, to account for moisture content unless the permit contains specific provisions for monitoring, recordkeeping, and reporting the moisture content of the DDGS. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.1.4	The Permittee shall limit Process Throughput <= 3.486 million gallons per year 12-month rolling sum denaturant loadout 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 source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.5	Grain received by the facility shall only be used for production of ethanol and co-products by the Permittee at the Al-Corn facility (ID 03900028). Grain as defined by 40 CFR Section 60.301, includes corn, wheat, sorghum, rice, rye, oats, barley or soybeans. All grain must be received at permitted receiving areas. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.1.6	Changes/Modifications That May Trigger New Source Review and/or Part 63 Major Source Status Prohibited: This permit establishes limits on the facility to keep it a minor source under New Source

Requirement number	Requirement and citation
	<p>Review and the National Emission Standards for Hazardous Air Pollutants (NESHAP) program at 40 CFR part 63. The Permittee cannot make any change at the source that qualifies as a Title I modification (as defined at Minn. R. 7007.0100, subp. 26) or that would make the facility a major source under New Source Review program, or the NESHAP program until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.1.7	<p>Equipment Labeling: The Permittee must permanently affix a unique number to each added, modified, or replaced emissions unit, stack or control equipment (equipment) that has flexibility provisions for tracking purposes (See Appendix D). The numbers must correlate the unit to the appropriate EQUI, STRU and TREA numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number must be maintained so that it is readable and visible at all times from a safe distance. If equipment is added or replaced, the equipment must be given a new unique number, numbers from replaced or removed equipment must not be reused. The Permittee must maintain any updates to Appendix D, including identification of facility-specific identification numbers, at the facility. The updated Appendix D must be submitted with each Annual Report. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.1.8	<p>Equipment Inventory: The Permittee must maintain a written list of all emission units (EQUI), stacks (STRU), and control equipment (TREA) on site that have flexibility provisions. The Permittee must use the tables in Appendix D to maintain the list. Appropriate data must be entered for all applicable data fields in Appendix D to identify and characterize emission units, control equipment and stack parameters prior to making any change. If a facility-specific identifier is used instead of the permit identifier, the Permittee must add the facility-specific identifier to Appendix D. End dates must be entered when equipment is replaced or removed. Minn. R. 7007.1150(C) for notifications does not apply to changes made at the facility that are pre-authorized within this permit, and subject to the requirement to submit an annual equipment inventory with the Annual Report.</p> <p>Identify removed equipment in the tables with equipment data struck out. Identify modified equipment in the tables with current equipment data, and past equipment data struck out.</p> <p>The date of construction is the date of the change for replaced, modified, or new equipment. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.1.9	<p>Process Flow Diagram: The Permittee must maintain an up-to-date process flow diagram of the</p>

Requirement number	Requirement and citation
	facility. [Minn. R. 7007.0800, subp. 2(A)]
5.1.10	The Permittee may not operate or maintain the facility such that it creates a public nuisance. If the commissioner determines that operation or maintenance of a commodity facility creates a public nuisance, the commissioner may require the Permittee to take measures necessary to eliminate the nuisance. [Minn. R. 7011.1010]
5.1.11	The Permittee shall clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology), maintain air pollution control equipment in proper operating condition. [Minn. R. 7011.1005, subp. 1(A)]
5.1.12	Maximum Contents of Denaturant : The Permittee assumed certain worst-case contents of materials when determining the potential to emit from denaturant storage, loadout activities, and fugitive equipment leaks. These assumptions are listed in Appendix H of this permit. Changing to a denaturant that has a higher content of any of the given pollutants is considered a change in the method of operation and must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7007.0100, subp. 35a]
5.1.13	Denaturant includes gasoline, natural gasoline, bittering agents, and other denaturants. VOC and HAP contents in denaturant shall be determined by the Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS) provided by the supplier for each denaturant used. If a material content range is given on the SDS or the MSDS, the highest number in the range shall be used in all compliance calculations. If there is information provided in the Regulatory Section of the SDS, the highest number in the range of that section may be used. Other alternative methods approved by the MPCA may be used to determine the VOC and HAPs contents. The Commissioner reserves the right to require the Permittee to determine the VOC and HAP contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the SDS or the MSDS. [Minn. R. 7007.0800, subps. 4-5]
5.1.14	Denaturant or gasoline received by the facility shall only be used as a denaturant of ethanol by the Permittee at the Al-Corn facility (ID No. 03900028) except as authorized at EQUI 382 and EQUI 383. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.1.15	Outdoor handling and storage of dry whole grain and DDGS is prohibited. Grain received must be unloaded only in the grain receiving building and stored in grain silos or equivalent.

Requirement number	Requirement and citation
	<p>Corn and/or other grains may not be unloaded and stockpiled or stored outdoors on the ground or any other surface or in any other area of the facility except the designated storage silos.</p> <p>This limitation does not apply to wet cake. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.16	<p>Daily Udenatured Ethanol Production Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the ethanol throughput in gallons. This shall be based on the sum of udenatured ethanol flowmeters to ethanol day and storage tanks, EQUI 361, EQUI 362, and EQUI 363. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.1.17	<p>Daily Grain Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the tons of grain received by the facility. This shall be based on grain receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800 subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.1.18	<p>Daily DDGS Loadout Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the tons of DDGS and MDGS loadout by the facility. This shall be based on loadout receipts. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.1.19	<p>Daily Denaturant Loadout Throughput Recordkeeping: For each day of operation, the Permittee shall record and maintain records of the gallons of denaturant throughput by the facility. This shall be based on a flowmeter from the denaturant tank to ethanol loadout. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.1.20	<p>Monthly Udenatured Ethanol Throughput Recordkeeping: By the 15th day of each month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The monthly gallons of ethanol throughput for the previous month based on summing the daily ethanol throughput record for that month, and 2) The 12-month rolling sum ethanol throughput for the previous 12-month period by summing the monthly ethanol throughput data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
5.1.21	<p>Monthly Grain Throughput Recordkeeping: By the 15th day of every month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The monthly tons of grain received during the previous month based on summing the daily grain receipts for that month, and 2) The 12-month rolling sum grain received in tons for the previous 12-month period by summing the monthly grain received data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.1.22	<p>Monthly Denaturant Loadout Throughput Recordkeeping: By the 15th day of every month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The monthly gallons of denaturant loadout during the previous month based on summing the daily denaturant loadout records for that month, and 2) The 12-month rolling sum mass of denaturant loadout in gallons for the previous 12-month period by summing the monthly denaturant loadout data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.1.23	<p>Monthly DDGS and MDGS Loadout Recordkeeping: By the 15th day of every month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1) The monthly tons of DDGS and MDGS loadout during the previous month based on summing the daily DDGS and MDGS loadout records for that month, and 2) The 12-month rolling sum mass of DDGS and MDGS loadout in tons for the previous 12-month period by summing the monthly DDGS and MDGS loadout data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.1.24	<p>The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility after June 1, 2022, 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. Stat. 116.385]</p>
5.1.25	<p>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</p>

Requirement number	Requirement and citation
	<p>other credible evidence to establish compliance or noncompliance with applicable requirements.</p> <p>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)]</p>
5.1.26	<p>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]</p>
5.1.27	<p>Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2(A) & (B)]</p>
5.1.28	<p>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)]</p>
5.1.29	<p>Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]</p>
5.1.30	<p>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]</p>
5.1.31	<p>Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices A: Insignificant Activities and General Applicable Requirements, B: Authorized Construction, D: Subject Item Data for Flexible Permitting, E: Performance Testing Recordkeeping and Test Methods, F: General Public Preclusion Plan, G: Fugitive Dust Control Plan, H: Maximum Contents of Denaturant, I: 40 CFR pt. 60, subp. A, J: Alternative Test Methods for VE or Opacity Determination for Intermittent Dust-Generating Operations, and K: 40 CFR pt. 60, subp. VVa.</p>

Requirement number	Requirement and citation
	Modeling parameters in Appendix C: Modeled Parameters is included for reference only as described elsewhere in this permit. [Minn. R. 7007.0800, subp. 2]
5.1.32	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
5.1.33	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
5.1.34	Comply with Fugitive Dust Control Plan: The Permittee shall follow the actions and recordkeeping specified in the Fugitive Dust Control Plan in Appendix G of this permit. A copy of the plan must be maintained on site and available for inspection. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the Fugitive Dust 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. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0150, Minn. Stat. 116.07, subd. 4a(a)]
5.1.35	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.36	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.37	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.38	<p>Performance Test Notifications and Submittals:</p> <p>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</p> <p>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]</p>

Requirement number	Requirement and citation
5.1.39	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
5.1.40	<p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. <p>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)]</p>
5.1.41	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
5.1.42	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
5.1.43	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
5.1.44	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 owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the

Requirement number	Requirement and citation
	<p>shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]</p>
5.1.45	<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration 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.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>
5.1.46	<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>
5.1.47	<p>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 which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
5.1.48	<p>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.</p>

Requirement number	Requirement and citation
	Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]
5.1.49	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
5.1.50	Within 15 days of a request from the Commissioner, the Permittee must provide a complete summary of all performance tests required at the facility including the subject item, pollutant, most recent test date (if applicable), and the date of the next test in an approved format. [Minn. R. 7007.0800, subp. 16(L)]
5.1.51	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
5.1.52	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
5.1.53	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
5.1.54	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 Section 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. RMP information may be obtained at

Requirement number	Requirement and citation
	http://www.epa.gov/rmp or by calling 1-800-424-9346. [40 CFR pt. 68]
5.1.55	Equivalent or Better Dispersion (EBD) Modeling Triggers (Modeling Not Required) for NO ₂ , PM ₁₀ and PM _{2.5} : Changes that do not require a permit amendment or require an administrative permit amendment do not trigger the EBD Modeling Submittal requirement. The Permittee shall keep updated records on site of all modeled NO ₂ , PM ₁₀ and PM _{2.5} parameters and emission rates listed in Appendix C. The Permittee shall submit any changes to modeled NO ₂ , PM ₁₀ and PM _{2.5} parameters and emission rates with the next required modeling submittal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.56	EBD Modeling Triggers (Modeling Required) for NO ₂ , PM ₁₀ and PM _{2.5} : Changes that require, or would require, a minor, moderate, or major permit amendment due to an increase in NO ₂ , PM ₁₀ or PM _{2.5} emissions and affect any modeled NO ₂ , PM ₁₀ or PM _{2.5} parameter or emission rate listed in Appendix C, or an addition to the information documented in Appendix C, trigger the EBD Remodeling Submittal requirement. The Permittee shall include previously made changes to modeled NO ₂ , PM ₁₀ or PM _{2.5} parameters and emission rates listed in Appendix C that did not previously trigger the EBD Modeling Submittal requirement with this modeling submittal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.57	EBD Modeling at Reissuance for NO ₂ , PM ₁₀ and PM _{2.5} : The Permittee shall submit an EBD Modeling Submittal with the permit reissuance application (due as stated elsewhere in this permit) that addresses any changes made during the permit term that did not require a permit amendment but that affected any modeled NO ₂ , PM ₁₀ or PM _{2.5} parameter or emission rate documented in Appendix C, or an addition to the information documented in Appendix C and that did not trigger the EBD Modeling Triggers (Modeling Required) requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.58	EBD Modeling Submittal for NO ₂ , PM ₁₀ and PM _{2.5} : For changes meeting the criteria in the EBD Modeling Triggers (Modeling Required) requirement, the Permittee shall submit an EBD modeling submittal in accordance with the current version of the MPCA Air Dispersion Modeling Guidance and shall wait for written approval (for major amendments, in the form of an issued permit amendment; for moderate amendments, in the form of a construction authorization letter) before making such changes. For minor amendments, written approval of the EBD modeling may be given before permit issuance; however, this approval applies only to the EBD modeling and not to any other changes. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.59	EBD Modeling Submittal Content for NO ₂ , PM ₁₀ and PM _{2.5} : The information submitted must include, for stack and vent sources, source emission rate, location, height, diameters, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and

Requirement number	Requirement and citation
	<p>dimensions of nearby buildings. For non-stack/vent sources, this includes the source emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.60	<p>Outdated EBD Baseline Modeling for NO₂, PM₁₀ and PM_{2.5}: Prior to conducting the EBD analysis, the Permittee shall use the current version of the MPCA Air Dispersion Modeling Guidance to determine if the Baseline Modeling (the most recent refined modeling demonstration) is outdated. If the Baseline Modeling is outdated, the Permittee shall update the Baseline Modeling to be consistent with the current version of the MPCA Air Dispersion Modeling Guidance. The updated modeling will become the new Baseline Modeling.</p> <p>This requirement does not require the Permittee to complete a new refined modeling demonstration using the revisions made for the EBD demonstration. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.61	<p>EBD Modeling Results for NO₂, PM₁₀ and PM_{2.5}: The dispersion characteristics due to the revisions of the information in Appendix C must be equivalent to or better than the dispersion characteristics modeled October 10, 2018. The Permittee shall demonstrate this equivalency in the proposal. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.62	<p>Computer Dispersion Modeling Triggers for NO₂, PM₁₀ and PM_{2.5}: The Permittee shall conduct a refined remodeling analysis in accordance with the Computer Dispersion Modeling requirements of this permit and the current version of the MPCA Air Dispersion Modeling Guidance if: (1) the results of the EBD modeling analysis do not demonstrate equivalent or better dispersion characteristics; (2) a conclusion cannot readily be made about the dispersion, or (3) the criteria in the EBD Modeling Triggers requirement are met and the Permittee has previously conducted three successive EBD analyses using the same Baseline Modeling. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.63	<p>Computer Dispersion Modeling Protocol: due 180 days after receipt of written MPCA request for NO₂, PM₁₀ or PM_{2.5} refined modeling. The Permittee shall submit a Computer Dispersion Modeling Protocol that is complete and approvable by MPCA by the deadline in this requirement. This protocol will describe the proposed modeling methodology and input data, in accordance with the current version of the MPCA Air Dispersion Modeling Guidance. The protocol must be based on projected operating conditions under the next permit term. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.64	<p>Computer Dispersion Modeling Protocol: due 60 days after receipt of written MPCA request for</p>

Requirement number	Requirement and citation
	revisions to the submitted protocol for NO2, PM10 or PM2.5 modeling. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.65	Computer Dispersion Modeling Results: due 180 days after receipt of written MPCA approval of Computer Dispersion Modeling Protocol for NO2, PM10 or PM2.5. The Permittee shall submit a final Computer Dispersion Modeling Report that is complete and approvable by MPCA by the deadline in this requirement. The submittal shall adhere to the current version of the MPCA Air Dispersion Modeling Guidance and the approved Computer Dispersion Modeling Protocol. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.66	<p>The Permittee is authorized to construct and operate EQUI 249, EQUI 281, EQUI 282, EQUI 290, EQUI 298, EQUI 304, EQUI 306, EQUI 307, EQUI 310, EQUI 351, EQUI 352, EQUI 368 and TREA 38, as defined by the emissions unit information in Appendix B of this permit.</p> <p>The authorization to start construction of this equipment expires 3 years after permit issuance of Air Emissions Permit No. 03900028-102. The units shall meet all applicable permit requirements. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.1.67	<p>General Public Preclusion Plan - Boundary Map</p> <p>The Permittee shall use fencing, control access points, conduct security patrols, place restriction signage, and remote monitoring as specified in Appendix F to maintain control over the fence line and effective fence line.</p> <p>Appendix F to this permit is a map that depicts the boundary at which the access of the general public can be controlled and compliance with the National Ambient Air Quality Standards (NAAQS) can be demonstrated. This boundary has been defined as the "effective fence line". Appendix F identifies the forms of control the Permittee will use to restrict access to the general public along portions of the fence line and effective fence line. The general public does not include employees or other categories of people who have been directly authorized by the property owner to enter or remain on the property for a limited period of time and for a specific purpose. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.68	<p>General Public Preclusion Plan</p> <p>This Plan shall, at a minimum, contain the following information:</p> <ol style="list-style-type: none"> 1. A map of the facility that clearly displays the ambient air boundary. The map must indicate how

Requirement number	Requirement and citation
	<p>access is precluded for each section of the boundary and must identify all access points (including roadways, power lines, rail spurs, etc.);</p> <ol style="list-style-type: none"> 2. Locations where fencing will be implemented; 3. Locations where security patrols will be implemented and the security patrol frequency; 4. Restriction signage spacing (restriction signage may include notices such as "No Trespassing," "Private Property," "Do Not Enter," or "Restricted Area"); 5. Location of remote monitoring devices; 6. Operation and maintenance requirements of remote monitoring software and devices; 7. Contingency plans for downtime for remote monitoring software and devices; and 8. A response plan for when breaches occur. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.69	<p>Recordkeeping for Breaches of the Ambient Air Boundary</p> <p>Within three calendar days of each observed breach, the Permittee shall document each instance that the ambient air boundary was breached by a member of the general public, including documenting the type, location, and duration of each breach. The Permittee shall identify and, within a reasonable amount of time, implement measures to prevent future breaches, if necessary. A breach to the ambient boundary occurs when a member of the general public accesses property identified by the Permittee as non-ambient air.</p> <p>The observation of a breach may be direct or indirect. A direct observation includes witnessing a member of the general public on property identified as non-ambient air. Indirect observations rely on evidence of a breach, such as a cut fence, worn paths, motorized vehicle tracks, or other signs of disturbance by a member of the general public on property identified as non-ambient air.</p> <p>The Permittee shall report each breach, including all steps taken or changes made to the General Public Preclusion Plan to prevent additional breaches, in the semiannual Deviations Report required by this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.1.70	<p>General Public Preclusion Plan - Fencing:</p> <p>The Permittee shall install and maintain fencing along ambient air boundary fence line and effective fence line as depicted in Appendix F. The Permittee shall inspect the fence line once per quarter. The Permittee shall maintain records of inspection and required maintenance of fence line. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subp. 5, Minn. R.</p>

Requirement number	Requirement and citation
	7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.71	General Public Preclusion Plan - Control of Access: The Permittee shall control access at any road, trail equal to or wider than 50 inches, and all abandoned railroad grades. The Permittee shall secure these access points with a locked and/or monitored gate or other physical barrier precluding access by the general public. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.72	General Public Preclusion Plan - Security Patrols: The Permittee shall develop, operate, and maintain a security patrol plan as part of the Plan. Patrol routes shall be followed as defined in the Plan. For portions of the effective fence line where patrols are identified, the Permittee shall patrol those portions at a minimum of once per operating day. The Permittee shall maintain records of patrol routes and frequency of patrols. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7007.0800, subp. 5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.73	General Public Preclusion Plan - Remote Monitoring: The Permittee shall operate and maintain remote monitoring equipment to maintain the effective fence line as depicted in Appendix F. The Permittee shall monitor at a minimum of once per day. Remote monitoring devices include but are not limited to fixed cameras and drone mounted cameras. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4(D), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
COMG 2	Facility Diesel Generators > 500 HP
5.2.1	Opacity <= 20 percent opacity once operating temperatures have been attained. This limit applies individually to each unit in COMG 2. [Minn. R. 7011.2300, subp. 1]
5.2.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit for each unit is less than 0.0015 lb/MMBtu due to equipment design and allowable fuels. This limit applies individually to each unit in COMG 2. [Minn. R. 7011.2300, subp. 2]
5.2.3	The Permittee shall limit Operating Hours <= 100 hours per calendar year for each COMG 2 engine. [40 CFR 63.6675, Minn. R. 7011.8150]
5.2.4	The Permittee shall limit Operating Hours <= 100 hours per year 12 month rolling sum for each COMG 2 engine. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.2.5	Carbon Monoxide <= 23 parts per million, volumetric dry at 15 percent oxygen. This limit applies individually to EQUI 60, EQUI 61 and EQUI 62. [40 CFR 63.6603(a), 40 CFR 63.6640, 40 CFR pt. 63, Subp. ZZZZ(Table 2d), Minn. R. 7011.8150]

Requirement number	Requirement and citation
5.2.6	Unless otherwise noted, COMG 2 requirements apply individually to each generator in COMG 2. [Minn. R. 7007.0800, subp. 2]
5.2.7	<p>The Permittee shall vent emissions from EQUI 60 to TREA 28 whenever EQUI 60 operates, and operate and maintain TREA 28 at all times that any emissions are vented to TREA 28. The Permittee shall document periods of non-operation of the control equipment TREA 28 whenever EQUI 60 is operating.</p> <p>The Permittee shall vent emissions from EQUI 61 to TREA 30 whenever EQUI 61 operates, and operate and maintain TREA 30 at all times that any emissions are vented to TREA 30. The Permittee shall document periods of non-operation of the control equipment TREA 30 whenever EQUI 61 is operating.</p> <p>The Permittee shall vent emissions from EQUI 62 to TREA 29 whenever EQUI 62 operates, and operate and maintain TREA 29 at all times that any emissions are vented to TREA 29. The Permittee shall document periods of non-operation of the control equipment TREA 29 whenever EQUI 62 is operating. [40 CFR pt. 63, subp. ZZZZ, Table 5 (item 1), Minn. R. 7011.8150, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.2.8	The Permittee is limited to No. 2 fuel oil, No. 1 fuel oil, biodiesel, and biodiesel blends with a Sulfur content \leq 0.0015 percent by weight (15 ppm) and a cetane index greater than or equal to 40 or an aromatic content less than or equal to 35 volume percent. [40 CFR 63.6604(a), 40 CFR 80.510(b), Minn. R. 7011.8150]
5.2.9	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.2.10	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.2.11	Daily Recordkeeping: The Permittee shall operate and maintain a non-resettable hour meter on each COMG 2 engine. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.2.12	<p>Monthly Recordkeeping: By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>(1) The total hours of operation for the previous calendar month based on the non-resettable hour</p>

Requirement number	Requirement and citation
	<p>meter; and (2) The 12-month rolling sum hours of operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</p>
5.2.13	<p>Annual Recordkeeping: The Permittee shall maintain monthly records of hours of operation, and calculate a running calendar year total by January 15th of each year. [Minn. R. 7007.0800, subps. 4-5]</p>
5.2.14	<p>The Permittee must comply with the applicable requirements in 40 CFR pt. 63, Table 2d and the operating limitations in 40 CFR pt. 63, Table 2b. Compliance with the numerical emission limitations shall be based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR Section 63.6620 and 40 CFR pt. 63, Table 4. [40 CFR 63.6603(a), 40 CFR 63.6640, 40 CFR pt. 63, Subp. ZZZZ (Table 4), Minn. R. 7011.8150]</p>
5.2.15	<p>At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R. 7011.8150]</p>
5.2.16	<p>The Permittee shall collect the catalyst inlet temperature data during the performance test according to 40 CFR Section 63.6625(b), and shall reduce these data to 4-hour rolling averages. [40 CFR pt. 63, subp. ZZZZ, Table 7, Minn. R. 7011.8150]</p>
5.2.17	<p>If the Permittee owns or operates a non-operational stationary RICE that is subject to performance testing, the Permittee is not required to start up the engine solely to conduct the performance test. The Permittee shall conduct the performance test when the engine is started up again. [40 CFR 63.6620(b), Minn. R. 7011.8150]</p>
5.2.18	<p>The Permittee shall conduct three separate test runs for each performance test as specified in 40 CFR Section 63.7(c)(3). Each test run must last at least 1 hour, unless otherwise specified. [40 CFR 63.6620(d), Minn. R. 7011.8150]</p>
5.2.19	<p>The Permittee must normalize the CO concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of</p>

Requirement number	Requirement and citation
	oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in 40 CFR Section 63.3320 (e)(2)(i) through (iii). [40 CFR 63.6620(e)(2), Minn. R. 7011.8150]
5.2.20	The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, strain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value must be provided. [40 CFR 63.6620(i), Minn. R. 7011.8150]
5.2.21	The Permittee must select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device. a) For CO and O₂ measurement, ducts less than or equal to 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts greater than 6 and less than or equal to 2 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3 point long line'). If the duct is greater than 12 inches in diameter and the sampling port location meets the two and half diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A 1, the duct may be sampled at '3 point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A 4. [40 CFR pt. 63, subp. ZZZZ, Table 4, Minn. R. 7011.8150]
5.2.22	The Permittee must measure the O₂ at the inlet and outlet of the control device, using Method 3 or 3A or 3B of 40 CFR part 60, appendix A 2, or ASTM Method D6522-00. The measurements to determine O₂ must be made at the same time as the measurements for CO concentration. [40 CFR pt. 63, subp. ZZZZ, Table 4, Minn. R. 7011.8150]
5.2.23	The Permittee must measure the CO at the inlet and the outlet of the control device using (1) ASTM D6522-00 or Method 10 of 40 CFR part 60, appendix A 4. The CO concentration must be at 15 percent O₂, dry basis. [40 CFR pt. 63, subp. ZZZZ, Table 4, Minn. R. 7011.8150]
5.2.24	The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30

Requirement number	Requirement and citation
	<p>minutes. After which time the emissions standards applicable to all times other than startup in Table 2d of 40 CFR pt. 63, subp. ZZZZ apply. 40 CFR pt. 63, subp. ZZZZ, Table 2d: Item 3 applies to EQUI 60 (Dryer Load Generator), EQUI 61 (Process Generator), and EQUI 62 (Cooling Tower Generator). [40 CFR 63.6625(h), 40 CFR pt. 63, subp. ZZZZ, Table 2d, Minn. R. 7011.8150]</p>
5.2.25	<p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 63.6635(b), Minn. R. 7011.8150]</p>
5.2.26	<p>The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods. [40 CFR 63.6635(c), Minn. R. 7011.8150]</p>
5.2.27	<p>The Permittee shall demonstrate continuous compliance with the requirements of 40 CFR pt. 63, subp. ZZZZ, Table 6 (Option 12) by:</p> <ol style="list-style-type: none"> 1. Conducting performance tests every 8,760 hours of operation or 5 years, whichever comes first, for CO, to demonstrate that the required 70 percent reduction is achieved or that emissions remain at or below the CO concentration limit. 2. Collecting the approved operating parameter (if any) data according to 40 CFR Section 63.6625(b). 3. Reducing these data to 4 hour rolling averages. 4. Maintaining the 4 hour rolling averages within the operating limitations for the catalyst inlet temperature; and 5. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ (Table 6), Minn. R. 7011.8150]
5.2.28	<p>Request to use alternative monitoring procedure. The Permittee who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in 40 CFR Section 63.8(f)(4)(ii). The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the</p>

Requirement number	Requirement and citation
	<p>requirements for an alternative test method under 40 CFR Section 63.7(f). The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in 40 CFR Section 63.2 and a performance evaluation test plan, if required, as specified in 40 CFR Section 63.8(c)(3). In addition, the application must include information justifying the Permittee's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method. Application for minor changes to monitoring procedures, as specified in 40 CFR Section 63.8(b)(1), may be made in the site specific performance evaluation plan. [40 CFR 63.8(f)(4)(i), Minn. R. 7011.8150]</p>
5.2.29	<p>The notification of compliance status shall be signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list:</p> <ol style="list-style-type: none"> 1. The methods that were used to determine compliance; 2. The results of any performance tests, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted; 3. The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods; 4. The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard; 5. An analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification); 6. A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and 7. A statement by the Permittee of the affected existing source as to whether the source has complied with the relevant standard or other requirements. [40 CFR 63.6645(h), 40 CFR 63.6665, 40 CFR 63.9(h)(2)(i)(A-G), Minn. R. 7011.8150]
5.2.30	<p>The Notification of Compliance Status must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring</p>

Requirement number	Requirement and citation
	results is required to be delivered or postmarked. Notifications may be combined as long as the due date requirement for each notification is met. [40 CFR 63.6645(h), 40 CFR 63.6665, 40 CFR 63.9(h)(2)(i)(A-G), Minn. R. 7011.8150]
5.2.31	The Permittee must report each instance in which an emission limitation or operating limitation was exceeded. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR Section 63.6650. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.2.32	The Permittee must report each instance in which the Permittee did not meet the requirements in 40 CFR pt. 63, subp. ZZZZ, Table 8 (General Provisions). [40 CFR 63.6640(c), Minn. R. 7011.8150]
5.2.33	If the Permittee submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. [40 CFR 63.6650(f), Table 7, Minn. R. 7011.8150]
5.2.34	<p>The Permittee shall maintain the following records:</p> <ol style="list-style-type: none"> 1. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv). 2. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. 3. Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii). 4. Records of all required maintenance performed on the air pollution control and monitoring equipment. 5. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a), Minn. R. 7011.8150]
5.2.35	<p>The Permittee shall maintain the following records:</p> <ol style="list-style-type: none"> 1. Records described in 40 CFR Section 63.10(b)(2)(vi) (xi). 2. Previous (i.e. superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3). 3. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR

Requirement number	Requirement and citation
	Section 63.8(f)(6)(i), if applicable. [40 CFR 63.6655(b), Minn. R. 7011.8150]
5.2.36	The Permittee shall keep the records required in Table 6 of 40 CFR pt. 63, subp. ZZZZ, to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d), Minn. R. 7011.8150]
5.2.37	The Permittee shall maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100]
5.2.38	The Permittee shall submit all of the notifications in 40 CFR Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) (e), and (g) and (h) that apply by the dates specified. [40 CFR 63.6645(a), Minn. R. 7011.8150]
5.2.39	The Permittee shall submit each report in Table 7 of 40 CFR pt. 63, subp. ZZZZ, as applicable. [40 CFR 63.10(d)(1), 40 CFR 63.6650(a), 40 CFR pt. 63, subp. ZZZZ(Table 7), Minn. R. 7011.8150]
5.2.40	The Compliance report shall contain the following information: 1) Company name and address. 2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. 3) Date of report and beginning and ending dates of the reporting period. 4) If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction. 5) If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. 6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out of control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period. [40 CFR 63.10(d)(1), 40 CFR 63.6650(c), Minn. R. 7011.8150]

Requirement number	Requirement and citation
5.2.41	The Permittee shall report each instance when the applicable requirements in Table 8 of 40 CFR pt. 63, subp. ZZZZ were not met. [40 CFR 63.6640(e), 40 CFR pt. 63, subp. ZZZZ(Table 8), Minn. R. 7011.8150]
5.2.42	Prohibited Activities: No Permittee may operate any affected source in violation of the requirements of 40 CFR pt. 63. [40 CFR 63.4(a), Minn. R. 7011.0050, subp. 1(B)]
5.2.43	Circumvention: The Permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere or (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. [40 CFR 63.4(b), Minn. R. 7011.0050, subp. 1(B)]
5.2.44	Malfunctions shall be corrected as soon as practicable after their occurrence. [40 CFR 63.6(e)(1)(ii), Minn. R. 7011.0050, subp. 1(B)]
5.2.45	The Administrator will determine compliance with nonopacity emission standards in 40 CFR pt. 63 based on the results of performance tests conducted according to the procedures in 40 CFR Section 63.7. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in 40 CFR Section 63.6(f)(1) and (2), upon obtaining all the compliance information required by 40 CFR pt. 63, subp. ZZZZ. [40 CFR 63.6(f)(2)&(3), Minn. R. 7011.0050, subp. 1(B)]
5.2.46	Conduct of performance tests: 1) Performance tests shall be conducted under conditions specified by the Administrator based on representative performance of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test. 2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in 40 CFR Section 63.7(e), in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61. The Commissioner has delegation to approve a minor or intermediate modification (if validated by Method 301) to a reference method or specified monitoring procedure as allowed for in 40 CFR Section 63.7(e)(2)(i) and (ii). [40 CFR 63.7(e)(1-2), Minn. R. 7017.2015]
5.2.47	Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and

Requirement number	Requirement and citation
	under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply, unless otherwise approved in accordance with provisions of 40 CFR Section 63.7(e)(3). [40 CFR 63.7(e)(3), Minn. R. 7017.2015]
5.2.48	Data analysis, recordkeeping, and reporting. Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Commissioner or Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The Permittee shall report the results of the performance test to the Commissioner or Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing. The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR Section 63.9(h) to the appropriate permitting authority. [40 CFR 63.7(g), Minn. R. 7017.2015]
5.2.49	All CMS required under relevant standards shall be subject to the provisions of 40 CFR Section 63.8 upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator. The performance specifications in 40 CFR pt. 60, Appendix G apply. [40 CFR 63.8(a)(2), Minn. R. 7017.1010]
5.2.50	Operation and maintenance of continuous monitoring systems. The Permittee shall maintain and operate each CMS in a manner consistent with good air pollution control practices. 1) The Permittee must keep the necessary parts for routine repairs of the affected CMS equipment readily available. 2) The Permittee must ensure the read out, or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection. 3) All CMS shall be installed, operational, and the data verified prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. [40 CFR 63.8(c)(1) (c)(6), Minn. R. 7017.1010]
5.2.51	Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR pt. 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site. [40 CFR 63.10(b)(1), Minn. R. 7019.0100, subp. 2(B)]
5.2.52	The Permittee shall maintain, at a minimum, the following information in the files:

Requirement number	Requirement and citation
	1) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative; 2) all required measurements needed to demonstrate compliance with a relevant standard; 3) all results of performance test, CMS performance evaluations, and opacity and visible emission observations; 4) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; 5) all CMS calibration checks; 6) all adjustments and maintenance performed on CMS; 7) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part; 8) all emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission; and 9) all documents supporting initial notifications and notifications of compliance status. [40 CFR 63.10(b)(2), Minn. R. 7019.0100, subp. 2(B)]
COMG 3	HAPs Limit Group
5.3.1	<p>The Permittee shall limit COMG 3 HAPs - Total \leq 17.0 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to the total HAP emissions from all associated subject items in COMG 3, which vent to STRU 24, STRU 37, STRU 46, STRU 47, and STRU 78. This limit does not represent facility-wide HAP - Total emissions. To determine facility-wide HAP emissions, the Permittee must sum emissions from all sources of HAP emissions at the facility, including fugitive sources, subject items associated with COMG 3, subject items or combustion HAPs not associated with or included in COMG 3, and insignificant activities. [Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.2	<p>The Permittee shall limit COMG 3 HAPs - Acetaldehyde \leq 9.00 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit applies to acetaldehyde emissions from all associated subject items in COMG 3, which vent to STRU 24, STRU 37, STRU 46, STRU 47, and STRU 78. This limit does not represent facility-wide acetaldehyde emissions. To determine facility-wide acetaldehyde emissions, the Permittee must sum emissions from all sources of acetaldehyde emissions at the facility, including fugitive sources, subject items associated with COMG 3, subject items or combustion HAPs not associated with or included in COMG 3, and insignificant activities. [Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.3	<p>The Permittee shall limit COMG 3 HAPs - Formaldehyde \leq 5.0 tons per year 12-month rolling sum calculated by the 15th day of each month for the previous 12-month period. This limit applies to the</p>

Requirement number	Requirement and citation
5.3.4	<p>single HAP emissions from all associated items in COMG 3 venting to STRU 24, STRU 37, STRU 46, STRU 47, and STRU 78. [Title I Condition: Avoid major source under 40 CFR 63.2]</p> <p>Requirements to conduct Hazardous Air Pollutant (HAP) performance testing, HAP control efficiency testing, and operate air pollution control equipment (as applicable) for COMG 3 HAP-emitting sources are found under the following subject items in Section 5 and Section 6 of this permit. A table of performance test operating parameters and test methods is contained in Appendix E.</p> <ol style="list-style-type: none"> 1. STRU 24 and TREA 6 (Thermal Oxidizer) - requirements for performance testing for outlet acetaldehyde, acrolein, formaldehyde, hexane, and methanol emission factors (lb/hr) and control efficiency. 2. STRU 37 and TREA 16 (Fermentation Scrubber) - requirements for performance testing for outlet acetaldehyde, acrolein, formaldehyde, and methanol emission factors (lb/hr) and HAP control efficiency. 3. STRU 46 (DDGS Cooling Cyclone) - requirements for performance testing for outlet (uncontrolled) acetaldehyde, acrolein, formaldehyde, and methanol emission factors (lb/hr). 4. STRU 47 and TREA 25 (Regenerative Thermal Oxidizer) - requirements for performance testing for inlet and outlet acetaldehyde, acrolein, formaldehyde, hexane, and methanol emission factors (lb/hr). 5. STRU 78 (Fluid Bed Cooler Baghouse) - requirements for performance testing for outlet (uncontrolled) acetaldehyde, acrolein, formaldehyde, and methanol emission factors (lb/hr). [Minn. R. 7007.0800, subp. 2(A)]
5.3.5	<p>The Emission Factors and pollutants for each stack are described in COMG 3 and identified in COMG 3 or at the applicable STRU in Section 5 of this permit. The Permittee shall use the values for B#c and B#u (controlled and uncontrolled individual HAP emission rate) in pounds per hour (lb/hr) units in Equation 1 of the Monthly Calculation below, unless new emission factors are set pursuant to Minn. R. 7017.225, subp. 3, as detailed in the Protocol for Resetting the HAP Emissions Factors (concurrent with VOC testing), inlet (uncontrolled) emission factors are set for STRU 47 pursuant to Minn. R. 7017.2025, subp. 3, as detailed in the Protocol for Setting Initial Inlet HAP emission factors (concurrent with VOC testing), a new control efficiency is set for TREA 6/STRU 24 and TREA 16/STRU</p>

Requirement number	Requirement and citation
	<p>37 pursuant to Minn. R. 7017.2025, subp. 3, as detailed in the Protocol for Resetting HAP Control Efficiencies (concurrent with VOC testing), as described below.</p> <p>The values listed in COMG 3 and at each STRU reflect AP-42 emission factors, results from the most recent verified performance testing, as documented in a Notice of Compliance or Notice of Test Verification letter, at each stack as of issuance of permit no. 03900028-102 and, in the case of STRU 78, performance testing of similar equipment at a similar sized facility. If an established emission factor is to be reset, the reset value shall be based on the emission factors recorded during the most recent MPCA-approved performance test.</p> <p>The Permittee must use these values in Equation 1 until subsequent testing is conducted. The verified values from the most recent performance tests for each stack must be used to calculate actual emissions of HAPs and to evaluate compliance with the COMG 3 HAP limits. For calculating HAP emissions during periods of control equipment downtime or bypass, when emissions are venting to the respective stack, or periods during which the monitored parameters are outside the indicator range, the Permittee must use the uncontrolled inlet emission factor identified in the requirements below. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.6	<p>HAP Emission Factors for STRU 24 and TREA 6 (Thermal Oxidizer including combustion from DDGS Dryer #2 with Multiclone (SV012), DDGS Dryer #1 with Multiclone (SV 012), and HRSG) -See STRU 24 for controlled (outlet) and uncontrolled (inlet) emission factors (lb/hr) for Acetaldehyde, Acrolein, Formaldehyde, Hexane and Methanol based on site-specific testing or use emission factors from most recent MPCA-approved performance test. -For combustion HAPs emission from STRU 24, the Permittee shall use the pollutant list and emission factors for HAPs from natural gas combustion from AP-42, Section 1.4, Table 1.4-3 and Table 1.4-4. To convert from lb/MMscf to lb/MMBtu divide by the high heating value for natural gas (1,020 Btu/scf). -EQUI 47 (DDGS Dryer #2 with Multiclone (SV012)), EQUI 54 (DDGS Dryer #1 with Multiclone (SV012)), & EQUI 308 (HRSG)/STRU 24 - 185.96 MMBtu/hr combined. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.7	<p>HAP Emission Factors for STRU 37 and TREA 16 (Fermentation Scrubber) - See STRU 37 for controlled (outlet) and uncontrolled (inlet) emission factors (lb/hr) for Acetaldehyde, Acrolein, Formaldehyde, and Methanol based on site-specific testing or use emission factors from most recent MPCA-approved performance test. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>

Requirement number	Requirement and citation
5.3.8	<p>HAP Emission Factors for STRU 46 (DDGS Cooling Cyclone)</p> <p>-See STRU 46 for uncontrolled (outlet) emission factors (lb/hr) for Acetaldehyde, Acrolein, Formaldehyde and Methanol based on site-specific testing or use emission factors from most recent MPCA-approved performance test. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.9	<p>HAP Emission Factors for STRU 47 and TREA 25 (Regenerative Thermal Oxidizer including combustion from DDGS Dryer (with Multiclone))</p> <p>-See STRU 47 for controlled (outlet) and uncontrolled (inlet) emission factors (lb/hr) for Acetaldehyde, Acrolein, Formaldehyde, Hexane and Methanol based on site-specific testing or use emission factors from most recent MPCA-approved performance test.</p> <p>-For combustion HAPs emission from STRU 47, the Permittee shall use the pollutant list and emission factors for HAPs from natural gas combustion from AP-42, Section 1.4, Table 1.4-3 and Table 1.4-4. To convert from lb/MMscf to lb/MMBtu divide by the high heating value for natural gas (1,020 Btu/scf).</p> <p>-EQUI 218 (DDGS Dryer (with Multiclone))/STRU 47 - 125 MMBtu/hr.</p> <p>-TREA 25 (RTO)/STRU 47 - 20 MMBtu/hr. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.10	<p>HAP Emission Factors for STRU 78 (Fluid Bed Cooler Baghouse)</p> <p>-See STRU 78 for uncontrolled (outlet) emission factors (lb/hr) for Acetaldehyde, Acrolein, Formaldehyde and Methanol based on site-specific testing or use emission factors from most recent MPCA-approved performance test. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.11	<p>The following units will calculate HAP emissions using AP-42 emission factors and Natural Gas usage, if site-specific testing is not available:</p> <p>EQUI 47 (DDGS Dryer #2 with Multiclone (SV012))/STRU 24 - 45 MMBtu/hr</p> <p>EQUI 54 (DDGS Dryer #1 with Multiclone (SV012))/STRU 24 - 42 MMBtu/hr</p> <p>EQUI 308 (HRSG)/STRU 24 - 98.96 MMBtu/hr</p> <p>EQUI 218 (DDGS Dryer (with Multiclone))/STRU 47 - 125 MMBtu/hr.</p> <p>TREA 25 (RTO)/STRU 47 - 20 MMBtu/hr. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.3.12	<p>HAP control efficiencies (CE) for the pollutants listed below are identified at each applicable TREA in Section 5 of this permit. The Permittee shall use the values for CE (% control efficiency) in Equation 1 of the Monthly Calculation below, unless an inlet (uncontrolled) emission factor is set for STRU 47 pursuant to Minn. R. 7017.2025, subp. 3, as detailed in the Protocol for Setting Initial Inlet HAP emission factors (concurrent with VOC testing), a new control efficiency is set for TREA 6/STRU 24 and</p>

Requirement number	Requirement and citation
	<p>TREA 16/STRU 37 pursuant to Minn. R. 7017.2025, subp. 3, as detailed in the Protocol for Resetting HAP Control Efficiencies (concurrent with VOC testing), as described below :</p> <ol style="list-style-type: none"> 1. TREA 6 (Thermal Oxidizer)/STRU 24 - Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol 2. TREA 16 (Fermentation Scrubber)/STRU 37 - Acetaldehyde, Acrolein, Formaldehyde, and Methanol 3. TREA 25 (Regenerative Thermal Oxidizer)/STRU 47 - Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol <p>The values listed at the individual TREA reflect a worst-case assumption (if no test data is available) or the results from the most recent verified performance testing. If an established COMG 3 HAP control efficiency is to be reset, the reset shall be based on the HAP control efficiencies recorded during the most recent MPCA verified performance testing as documented in a Notice of Compliance or Notice of Test Verification letter, at each stack as of issuance of permit no. 03900028-102.</p> <p>The Permittee must use these values in Equation 1 until subsequent testing is conducted or until site-specific inlet (uncontrolled) emission factors are determined and set. If there is an inlet emission factor set, it must be used in the calculation. The verified values from the most recent performance tests for each stack must be used to calculate uncontrolled emissions of HAPs and to evaluate compliance with the COMG 3 HAP limits. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.3.13	<p>Protocol for Resetting HAP Efficiency Factors (concurrent with VOC testing): This Protocol must be used when HAP efficiency testing is conducted concurrently with VOC as mass testing. The Permittee shall conduct performance testing to measure individual HAP efficiencies as required elsewhere in this permit, concurrent with testing for VOC as mass. If a HAP efficiency is to be reset, the reset of the efficiency shall be reset to the 3-hour average efficiency (%), based on the values recorded during the most recent MPCA-approved performance test.</p> <p>During each performance test, the Permittee must continuously monitor the short-term throughput limits and any other process and control parameters detailed in Appendix E. A print-out of the records from the DAS must be included with the performance test results and submitted to the Commissioner with the performance test report. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The new HAP efficiencies shall be effective upon receipt of the Notice of Compliance (NOC)/Notice of</p>

Requirement number	Requirement and citation
	Test Verification (NOTV) letter that approves the test results and shall be incorporated into the permit during the next permit amendment. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.3.14	<p>Protocol for Setting Initial inlet HAP Emission Factors (concurrent with VOC testing): This Protocol must be used when testing for HAP emission factors is conducted concurrently with VOC as mass testing. The Permittee shall conduct performance testing to measure individual HAP emission factors as required elsewhere in this permit, concurrent with testing for VOC as mass. If a HAP emission factors is to be set, the emission factor shall be set to the 3-hour average emission rate in lb/hr, based on the values recorded during the most recent MPCA-approved emission factor performance test that was conducted with performance testing for VOC as mass.</p> <p>During each performance test, the Permittee must continuously monitor the short-term throughput limits and any other process and control parameters detailed in Appendix E. A print-out of the records from the DAS must be included with the performance test results and submitted to the Commissioner with the performance test report. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The new HAP inlet emission factors shall be effective upon receipt of the Notice of Compliance (NOC)/Notice of Test Verification (NOTV) letter that approves the test results and shall be incorporated into the permit during the next permit amendment. Once inlet HAP emission factors have been determined and approved, they must be used in Equation 1 in lieu of previously identified HAP efficiencies. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.3.15	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from any Protocol for Resetting the HAP Emission Factors or HAP Efficiencies or Setting Initial HAP Emission Factors established by this permit. [Minn. R. 7007.1500, subp. 1]
5.3.16	Notwithstanding the Protocols detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the NOC or NOTV letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.3.17	Daily Recordkeeping and Monthly Calculation of Hours of Operation: The Permittee shall keep daily records and monthly calculations as described at STRU 24, STRU 37, STRU 46, STRU 47 and STRU 78.

Requirement number	Requirement and citation
	Monthly controlled hours of operation shall be calculated and recorded monthly based upon daily records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]
5.3.18	Natural Gas: Daily Monitoring and Recordkeeping. On each day of operation, the Permittee shall record and maintain a record of the total cubic feet of natural gas used by EQUI 47, EQUI 54, EQUI 218, EQUI 308, and TREA 25. This shall be based on fuel usage meter readings. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]
5.3.19	Natural Gas: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the total cubic feet of natural gas used by EQUI 47, EQUI 54, EQUI 218, EQUI 308, and TREA 25 for the previous calendar month using the daily records. [Minn. R. 7007.0800, subps. 4-5]
5.3.20	<p>Monthly Calculation of Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record:</p> <ol style="list-style-type: none"> 1. the monthly single HAP emissions for acetaldehyde, acrolein, formaldehyde, hexane, and methanol emissions from STRU 24, STRU 37, STRU 46, STRU 47, and STRU 78 during the previous calendar month using Equation 1 below, and 2. the monthly single HAP emission calculations for natural-gas combustion HAP emissions from STRU 24, and STRU 47 based on AP-42 emission factors using Equation 2 below. [Minn. R. 7007.0800, subps. 4-5]
5.3.21	<p>Equation 1. Single monthly HAP emissions calculations based on emission factors and hours of operation and HAP control efficiencies:</p> $H_p = ((A_{1c} \times B_1) + (A_{1u} \times B_1 / (1 - CE)) + (A_{2c} \times B_2) + (A_{2u} \times B_2 / (1 - CE)) \dots \text{etc.}) / 2000$ <p>where: H_p = Single acetaldehyde, acrolein, methanol, hexane, and formaldehyde emissions; tons/month</p> <p>$A_{\#c}$ = controlled HAP source (STRU) hours of operation during the previous month when emissions were vented to controls and all applicable control equipment operating parameters were within the required indicator ranges; hrs/month</p> <p>$B_{\#}$ = Controlled (outlet) HAP emission rate or emission factor; lb/hr as identified at the applicable STRU, or as reset by the most recent MPCA-approved performance test. For HAP emission rates or emission factors that are not specifically identified in the permit, the Permittee shall use the emission</p>

Requirement number	Requirement and citation
	<p>factors relied upon in the final certified calculations submitted with the application for this permit. The Permittee may test for controlled (outlet) HAP emission factors in lieu of using AP-42 factors. If testing is conducted, site-specific test results must be used. The test must be approved by the MPCA.</p> <p>A#u = "uncontrolled" HAP source operating hours during the previous month when emissions were vented to the associated STRU; but not vented to associated controls (if applicable); when the applicable control equipment monitoring parameter deviated from the required indicator ranges, when the control equipment was non-operational, or if the subject item is not equipped with add-on controls; hrs/month.</p> <p>CE (Control efficiency)= 1 minus the control efficiency for each HAP as identified at the applicable TREA, or as reset by the most recent MPCA-approved performance test. For uncontrolled equipment, CE = 0.</p> <p>1, 2, and ... etc. represent stacks (STRU). [Minn. R. 7007.0800, subps. 4-5]</p>
5.3.22	<p>Equation 2: Single monthly HAP emissions calculations based on AP-42 natural-gas combustion emission factors:</p> $H_c = (NG * EF) / 2000$ <p>Where: Hc = Individual HAP emissions from natural-gas combustion, tons/month NG = monthly natural gas usage from EQUI 47, EQUI 54, EQUI 218, EQUI 308, and TREA 25 EF = Emission Factor. [Minn. R. 7007.0800, subps. 4-5]</p>
5.3.23	<p>Monthly Calculation and Recordkeeping - COMG 3 Single HAP Emissions: By the 15th of each month, the Permittee shall calculate and record for the previous 12-month period:</p> <ol style="list-style-type: none"> 1. the monthly single HAP emissions for acetaldehyde, acrolein, formaldehyde, hexane, and methanol emissions from STRU 24, STRU 37, STRU 46, STRU 47, and STRU 78 during the previous calendar month using Equation 1; 2. the monthly single HAP emissions calculations for natural-gas combustion HAP emissions from STRU 24, and STRU 47 during the previous month using Equation 2. [Minn. R. 7007.0800, subps. 4-5]
5.3.24	<p>Monthly Calculation and Recordkeeping - COMG 3 HAP - Total Emissions: By the 15th of each month, the Permittee shall calculate and record the COMG 3 HAP -Total emissions for the previous 12-month</p>

Requirement number	Requirement and citation
	period by: 1. Summing the results of the individual HAPs emissions for the previous month from Equation 1 with the sum of the results of the individual HAPs emissions for the previous month from Equation 2, to get HAP - Total emissions for the month (tons/month) 2. Summing the monthly emissions data for COMG 3 HAP - Total emissions for the previous 12-month period. [Minn. R. 7007.0800, subps. 4-5]
COMG 7	Denaturant Tanks subject to Minn. R. 7011.1505
5.4.1	The Permittee shall equip EQUI 85 and EQUI 86 with a permanent submerged fill pipe. [Minn. R. 7011.1505, subp. 3(B)]
5.4.2	The Permittee shall equip EQUI 248 with a floating roof. See COMG 13 for requirements to inspect and maintain EQUI 248 internal floating roof. [Minn. R. 7011.1505, subp. 3(C)(1)]
COMG 10	Combustion turbine and duct burner
5.5.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.1(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a); 40 CFR 60.5(b); 40 CFR 60.6(a); 40 CFR 60.6(b); 40 CFR 60.6(c); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3); 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); 40 CFR 60.8(a); 40 CFR 60.8(b);

Requirement number	Requirement and citation
	40 CFR 60.8(c);
	40 CFR 60.8(d);
	40 CFR 60.8(e);
	40 CFR 60.8(f);
	40 CFR 60.8(g);
	40 CFR 60.8(h);
	40 CFR 60.8(i);
	40 CFR 60.9;
	40 CFR 60.11(d);
	40 CFR 60.11(f);
	40 CFR 60.12;
	40 CFR 60.14(a);
	40 CFR 60.14(c);
	40 CFR 60.14(e);
	40 CFR 60.14(f);
	40 CFR 60.14(g);
	40 CFR 60.15(a);
	40 CFR 60.15(b);
	40 CFR 60.15(c);
	40 CFR 60.15(d);
	40 CFR 60.15(e);
	40 CFR 60.15(f);
	40 CFR 60.15(g);
	40 CFR 60.17;
	40 CFR 60.19(a);
	40 CFR 60.19(b);
	40 CFR 60.19(c);
	40 CFR 60.19(d);
	40 CFR 60.19(e);
	40 CFR 60.19(f)(1);
	40 CFR 60.19(f)(2);
	40 CFR 60.19(f)(3); and
	40 CFR 60.19(f)(4).
	A copy of 40 CFR pt. 60, subp. A is included in Appendix I. If the standard changes or upon adoption of

Requirement number	Requirement and citation
	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 60.subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-1500, Minn. R. 7011.0050, Minn. R. 7011.2375, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.5.2	The Permittee shall limit emissions of Nitrogen Oxides <= 25 parts per million at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh). This limit applies to the combined emissions of EQUI 225 and EQUI 226. This limit applies when EQUI 225 is operating at greater than 75 percent of peak load or temperatures greater than 0 degrees Fahrenheit. [40 CFR 60.4320(a), 40 CFR pt. 60, subp. KKKK, Table 1, Minn. R. 7011.2375]
5.5.3	Sulfur Dioxide: The Permittee must not burn any fuel in EQUIs 225 and 226 which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. [40 CFR 60.4330(a)(2), Minn. R. 7011.2375]
5.5.4	The Permittee shall limit emissions of Nitrogen Oxides <= 150 parts per million at 15 percent O2 or 1100 ng/J of useful output (8.7 lb/MWh). This limit applies to the combined emissions of EQUI 225 and EQUI 226. This limit applies when EQUI 225 is operating at less than 75 percent of peak load or temperatures less than 0 degrees Fahrenheit. [40 CFR 60.4320(a), 40 CFR pt. 60, subp. KKKK, Table 1, Minn. R. 7011.2375]
5.5.5	The Permittee shall limit emissions of Nitrogen Oxides <= 54 parts per million at 15 percent O2 or 110 ng/J of useful output (0.86 lb/MWh). This limit applies to the emissions of EQUI 226 when EQUI 225 is not operating. [40 CFR 60.4320(a), 40 CFR pt. 60, subp. KKKK, Table 1, Minn. R. 7011.2375]
5.5.6	<p>The Permittee may use two general methodologies to conduct the performance tests. For each test run:</p> <p>1) Measure the NOx concentration (ppm), using EPA Method 7E or 20 in Appendix A of 40 CFR pt. 60. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of 40 CFR pt. 60, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NOX emission rate: $E = ((1.194 \times 10^{-7}) \times \text{NOX}_c \times Q_{\text{std}}) / P$</p> <p>Where: E = NOX emission rate, in lb/MWh</p> <p>1.194 x 10⁻⁷ = conversion constant, in lb/dscf-ppm</p>

Requirement number	Requirement and citation
	<p>NOX_c = average NOX concentration for the run, in ppm</p> <p>Q_{std} = stack gas volumetric flow rate, in dscf/hr</p> <p>P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to 40 CFR Section 60.4350(f)(2).</p> <p>OR</p> <p>2) Measure the NOx and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use to calculate the NOx emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in 40 CFR Section 60.4350(f) to calculate the NOx emission rate in lb/MWh. [40 CFR 60.4400(a)(1)(i-ii), Minn. R. 7011.2375]</p>
5.5.7	<p>Sampling traverse points for NOx and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points. [40 CFR 60.4400(a)(2), Minn. R. 7011.2375]</p>
5.5.8	<p>For a combined cycle and CHP turbine system with supplemental heat (duct burner), the Permittee must measure the total NOx emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test. [40 CFR 60.4400(b)(2), Minn. R. 7011.2375]</p>
5.5.9	<p>The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. The Permittee may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. The Permittee must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes. [40 CFR 60.4400(b), Minn. R. 7011.2375]</p>
5.5.10	<p>The Permittee must operate and maintain the turbine and duct burner (EQUIs 225 and 226), any air pollution control equipment, and monitoring equipment in a manner consistent with good air</p>

Requirement number	Requirement and citation
5.5.11	<p>pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction. [40 CFR 60.4333(a), Minn. R. 7011.2375]</p> <p>Fuel Sulfur Content: The Permittee shall maintain a current valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying the maximum total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet, and has potential sulfur emissions of less than 0.060 lb SO₂/MMBtu heat input. [40 CFR 60.4365(a), Minn. R. 7011.2375]</p>
COMG 13	Kb Tanks w/ Double-seal System
5.6.1	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <ul style="list-style-type: none"> <li>40 CFR 60.1(a); <li>40 CFR 60.1(b); <li>40 CFR 60.1(c); <li>40 CFR 60.2; <li>40 CFR 60.3; <li>40 CFR 60.4; <li>40 CFR 60.5(a); <li>40 CFR 60.5(b); <li>40 CFR 60.6(a); <li>40 CFR 60.6(b); <li>40 CFR 60.6(c); <li>40 CFR 60.7(a)(1); <li>40 CFR 60.7(a)(3); <li>40 CFR 60.7(a)(4); <li>40 CFR 60.7(b); <li>40 CFR 60.7(f); <li>40 CFR 60.7(g); <li>40 CFR 60.9; <li>40 CFR 60.10(a); <li>40 CFR 60.10(b); <li>40 CFR 60.11(d); <li>40 CFR 60.11(f); <li>40 CFR 60.12; <li>40 CFR 60.14(a); <li>40 CFR 60.14(c);

Requirement number	Requirement and citation
	<p>40 CFR 60.14(e); 40 CFR 60.14(f); 40 CFR 60.14(g); 40 CFR 60.15(a); 40 CFR 60.15(b); 40 CFR 60.15(c); 40 CFR 60.15(d); 40 CFR 60.15(e); 40 CFR 60.15(f); 40 CFR 60.17; 40 CFR 60.19(a); 40 CFR 60.19(b); 40 CFR 60.19(c); 40 CFR 60.19(d); 40 CFR 60.19(e); 40 CFR 60.19(f)(1); 40 CFR 60.19(f)(2); 40 CFR 60.19(f)(3); and 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A 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 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. 7007.1150-1500, Minn. R. 7011.0050, Minn. R. 7011.1520, C, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.6.2	<p>The Permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the requirements of 40 CFR Section 60.112b(a)(1). [40 CFR 60.112b(a), Minn. R. 7011.1520, C]</p>
5.6.3	<p>The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as</p>

Requirement number	Requirement and citation
	rapidly as possible. [40 CFR 60.112b(a)(1)(i), Minn. R. 7011.1520, C]
5.6.4	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [40 CFR 60.112b(a)(1)(iii), Minn. R. 7011.1520, C]
5.6.5	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [40 CFR 60.112b(a)(1)(iv), Minn. R. 7011.1520, C]
5.6.6	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR 60.112b(a)(1)(v), Minn. R. 7011.1520, C]
5.6.7	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [40 CFR 60.112b(a)(1)(vi), Minn. R. 7011.1520, C]
5.6.8	Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [40 CFR 60.112b(a)(1)(vii), Minn. R. 7011.1520, C]
5.6.9	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [40 CFR 60.112b(a)(1)(viii), Minn. R. 7011.1520, C]
5.6.10	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix), Minn. R. 7011.1520, C]
5.6.11	The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, or both, the Permittee shall repair the items before filling the storage vessel. [40 CFR 60.113b(a)(1) , Minn. R. 7011.1520, C]
5.6.12	Internal Inspections: The Permittee shall conduct internal inspections at intervals no greater than 10 years. The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary or secondary seal has holes, tears, or

Requirement number	Requirement and citation
5.6.13	<p>other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items so that none of these conditions exist before refilling the storage vessel. [40 CFR 60.113b(a)(4), Minn. R. 7011.1520, C]</p> <p>Notification: If an inspection is required (under 40 CFR Section 60.113b(a)(1) or 40 CFR Section 60.113b(a)(4)), the Permittee shall notify the Commissioner in writing at least 30 days prior to the filling or refilling of the storage vessel, to afford the Commissioner the opportunity to have an observer present. If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of the refilling the tank, the Permittee shall notify the Commissioner at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Commissioner at least 7 days prior to refilling. [40 CFR 60.113b(a)(5), Minn. R. 7011.1520, C]</p>
5.6.14	<p>Notification: The Permittee shall furnish the Commissioner with a report describing the internal floating roof and certifying that it meets the specifications of 40 CFR Section 60.112b(a)(1) and 40 CFR Section 60.113b(a)(1). The report shall be an attachment to the notification of actual date of initial startup required by 40 CFR Section 60.7(a)(3). [40 CFR 60.115b(a)(1), Minn. R. 7011.1520, C]</p>
5.6.15	<p>The Permittee shall keep a record of each inspection performed as required by 40 CFR Section 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR 60.115b(a)(2), Minn. R. 7011.1520, C]</p>
5.6.16	<p>The Permittee shall keep copies of all records for at least 2 years. The record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel will be kept for the life of the source. [40 CFR 60.116b(a), Minn. R. 7011.1520, C]</p>
5.6.17	<p>Recordkeeping: The Permittee shall maintain records showing the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period, calculated as described in 40 CFR Section 60.116b(e). [40 CFR 60.116b(c), Minn. R. 7011.1520, C]</p>
5.6.18	<p>Each internal floating roof shall be equipped with a closure devices between the wall of the storage vessel and the edge of the internal floating roof consisting of two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the</p>

Requirement number	Requirement and citation
	storage vessel and the edge of the internal floating roof. The lower seal may be vapor mounted, but both must be continuous. [40 CFR 60.112b(a)(1)(ii)(B) , Minn. R. 7011.1520, C]
5.6.19	The Permittee shall visually inspect the internal floating roof and the primary seal, or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(3)(ii), Minn. R. 7011.1520, C]
5.6.20	After each inspection required under 40 CFR Section 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Section 60.113b(a)(3)(ii), a report shall be furnished to the Commissioner within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR Section 60.112b(a)(1) or 40 CFR Section 60.113b(a)(3)(ii), and list each repair made. [40 CFR 60.115b(a)(4), Minn. R. 7011.1520, C]
COMG 14	Emission sources subject to Minn. R. 7011.0715 (IPER)
5.7.1	Unless otherwise noted, COMG 14 requirements apply individually to each member of COMG 14. [Minn. R. 7007.0800, subp. 2]
5.7.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.7.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
COMG 16	Flare 2 Ethanol Loadout
5.8.1	The Permittee shall vent emissions from EQUI 228, EQUI 229, EQUI 281 and EQUI 282 to TREA 15 whenever EQUI 228, EQUI 229, EQUI 281 or EQUI 282 operates, and operate and maintain TREA 15 at all times that any emissions are vented to TREA 15. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.8.2	Each railcar loaded at EQUI 228, EQUI 229, EQUI 281, or EQUI 282 shall be dedicated as undenatured

Requirement number	Requirement and citation
	and denatured ethanol only. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.8.3	Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours of denatured ethanol loadout. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR pt. 52, 21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.8.4	Monthly Recordkeeping: By the 15th day of every month, calculate and record the total hours of denatured ethanol loadout during the previous month and the total hours of denatured ethanol loadout for the previous 12 months (12-month rolling sum). [Minn. R. 7007.0800, subps. 4-5]
COMG 17	Steam Generating Unit
5.9.1	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <ul style="list-style-type: none"> 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.1(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a); 40 CFR 60.5(b); 40 CFR 60.6(a); 40 CFR 60.6(b); 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.7(f); 40 CFR 60.9; 40 CFR 60.10(a); 40 CFR 60.10(b); 40 CFR 60.11(d); 40 CFR 60.11(f); 40 CFR 60.12; 40 CFR 60.14(a); 40 CFR 60.14(b); 40 CFR 60.14(c);

Requirement number	Requirement and citation
	<p>40 CFR 60.14(e); 40 CFR 60.14(f); 40 CFR 60.14(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19.</p> <p>A copy of 40 CFR pt. 60, subp. A 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 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, Minn. R. 7011.0570, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.9.2	<p>Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the thermal oxidizer (TREA 6) during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]</p>
COMG 19	DDGS Drying and Cooling
5.10.1	<p>Short-term Process Throughput \leq 70.0 tons per hour using 3-hr average dryer input rate effective until the first compliant performance test of STRU 24 and STRU 46 conducted after issuance of this permit. The dryer input rate will be the sum of the syrup feed rate and centrifuge feed rates converted to tons per hour as calculated for the September 13, 2018 performance test. The syrup feed rate will be measured from the syrup tank (EQUI 312), to the dryers, EQUI 47 and EQUI 54. The centrifuge feed rate will be measured from the centrifuge (EQUI 12) to the dryers, EQUI 47 and EQUI 54, based on the sum of parametric monitors (gpm), EQUI 323, EQUI 324, EQUI 325 and EQUI 326.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record syrup feed rate and centrifuge feed rate readings used to calculate the tons of dryer input in accordance with calculations provided for the September 13, 2018 performance test. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour</p>

Requirement number	Requirement and citation
	<p>block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.10.2	<p>Short term Process Throughput \leq 17.9 tons per hour using 3 hr average dryer output rate effective until the first compliant performance test of STRU 24 and STRU 46 conducted after issuance of this permit. The dryer output rate will be the sum of the syrup feed rate and centrifuge feed rates converted to tons per hour as calculated for the November 14, 2018 performance test. The syrup feed rate will be measured from the syrup tank (EQUI 312), to the dryers, EQUI 47 and EQUI 54. The centrifuge feed rate will be measured from the centrifuge (EQUI 12) to the dryers, EQUI 47 and EQUI 54, based on the sum of parametric monitors (gpm), EQUI 323, EQUI 324, EQUI 325 and EQUI 326.</p> <p>The Permittee must maintain at the facility adequate grain receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard copy recorder or a data acquisition system to take and record syrup feed rate and centrifuge feed rate readings used to calculate the tons of dryer input in accordance with calculations provided for the November 14, 2018 performance test. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.10.3	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process</p>

Requirement number	Requirement and citation
	<p>change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate will be determined by the first compliant performance test at STRU 24 and STRU 46 following permit issuance.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.10.4	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish each Maximum Achievable Process Rate by conducting a performance test of STRU 24 and STRU 46 at the maximum operating rate possible 60 calendar days after Permit Issuance, and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none">1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date.2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate.3. Each Maximum Achievable Process Rate will be set to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.4. The Permittee must conduct the performance test on the date specified in the Performance Test

Requirement number	Requirement and citation
	<p>Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit.</p> <p>This procedure may change the control equipment operating parameter limits as described at TREA 6.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.subps. 1-2]</p>
5.10.5	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. Each Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate.

Requirement number	Requirement and citation
	<p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.</p> <p>This procedure may change the control equipment operating parameter limits as described at TREA 6.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.10.6	<p>Process Throughput: Short-term Process Throughput will be set by the permit as the process rate measured in gallons per minute 3-hour block average syrup feed rate during the first compliant performance test of STRU 24 and STRU 46 conducted 60 days after Permit Issuance. The syrup feed rate will be measured from the syrup tank (EQUI 312), to the dryers, EQUI 47 and EQUI 54, based on the sum of parametric monitors (gpm), EQUI 321 and EQUI 322.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>

Requirement number	Requirement and citation
5.10.7	<p>Process Throughput: Short-term Process Throughput will be set by the permit as the process rate measured in gallons per minute 3-hour block average centrifuge feed rate during the first compliant performance test of STRU 24 and STRU 46 conducted 60 days after Permit Issuance. The centrifuge feed rate will be measured from the centrifuge (EQUI 12) to the dryers, EQUI 47 and EQUI 54, based on the sum of parametric monitors (gpm), EQUI 323, EQUI 324, EQUI 325 and EQUI 326.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.10.8	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure VOC as mass, PM/PM10/PM2.5, NOx, and CO emission rates; VOC and HAP destruction efficiency; and HAP outlet emissions factors as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for VOC as mass, PM/PM10/PM2.5, NOx, and CO emission rates; and VOC control efficiency. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the syrup feed rate and centrifuge feed rate and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts or DDGS loadout receipts for the 3-</p>

Requirement number	Requirement and citation
	<p>hour period of the performance test. The Permittee shall calculate the average syrup feed rate and average centrifuge feed rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none"><li>- If the test results are less than or equal to 80% of tested STRU 24 or STRU 46 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;<li>- If the test results are less than or equal to 80% of tested STRU 24 or STRU 46 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;<li>- If the test results are greater than 80% of any STRU 24 or STRU 46 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;<li>- If the test results are greater than 80% of any STRU 24 or STRU 46 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;<li>- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack. <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance</p>

Requirement number	Requirement and citation
	testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.10.9	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. <p>The Permittee shall follow TFAC 2 requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.10.10	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]

Requirement number	Requirement and citation
5.10.11	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
COMG 20	Grain Milling and Flour Conveyance
5.11.1	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate will be determined by the first compliant performance test at STRU 39 following permit issuance.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.11.2	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish each Maximum Achievable Process Rate by conducting a performance test of STRU 39 at the maximum operating rate possible before 9/13/2023, and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date.</p>

Requirement number	Requirement and citation
	<p>2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate.</p> <p>3. Each Maximum Achievable Process Rate will be set to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit.</p> <p>This procedure may change the control equipment operating parameter limits as described at TREA 18 and TREA 21.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.11.3	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased</p>

Requirement number	Requirement and citation
	<p>process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date.</p> <p>2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate.</p> <p>3. Each Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.</p> <p>This procedure may change the control equipment operating parameter limits as described at TREA 18 and TREA 21.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.11.4	<p>Short-term Process Throughput \leq 160 tons per hour 3-hour block average grain input rate to hammermills as determined during the September 11-13, 2018 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits below. The grain input rate to hammermills will be measured from the hammermill surge bin to the hammermills based on flowmeter (gpm), EQUI 331, EQUI 332, EQUI 333 and EQUI 334.</p> <p>The Permittee must maintain at the facility adequate grain receiving receipts, DDGS loadout receipts,</p>

Requirement number	Requirement and citation
	<p>and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.11.5	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM10/PM2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for PM/PM10/PM2.5 emission rates. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the grain input rate and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average grain input rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - If the test results are less than or equal to 80% of tested STRU 39 or STRU 43 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;

Requirement number	Requirement and citation
	<p>- If the test results are less than or equal to 80% of tested STRU 39 or STRU 43 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;</p> <p>- If the test results are greater than 80% of any STRU 39 or STRU 43 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;</p> <p>- If the test results are greater than 80% of any STRU 39 or STRU 43 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;</p> <p>- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack.</p> <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.11.6	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish</p>

Requirement number	Requirement and citation
	<p>to be authorized to exceed the short-term throughput limit, if prior to the test date.</p> <p>2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput.</p> <p>3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification.</p> <p>The Permittee shall follow TFAC 2 requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.11.7	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.11.8	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
COMG 21	Distillation Drying and Cooling
5.12.1	<p>Short-term Process Throughput <= 57 tons per hour using 3-hr average dryer input rate effective until the first compliant performance test of STRU 47 and STRU 78 conducted after issuance of this permit. The dryer input rate will be the sum of the syrup feed rate and centrifuge feed rates converted to tons per hour as calculated for the December 12, 2019 performance test. The syrup feed rate will be</p>

Requirement number	Requirement and citation
	<p>measured from the syrup tank (EQUI 313) to the dryer (EQUI 218) based on a flowmeter (gpm), EQUI 336. The centrifuge feed rate will be measured from the centrifuge (EQUI 231) to the dryer (EQUI 218) based on flowmeter (gpm), EQUI 337, EQUI 338 and EQUI 339.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record syrup feed rate and centrifuge feed rate readings used to calculate the tons of dryer input in accordance with calculations provided for the December 12, 2019 performance test. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.12.2	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate will be determined by the first compliant performance test at STRU 47 and STRU 78 following permit issuance.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>

Requirement number	Requirement and citation
5.12.3	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish each Maximum Achievable Process Rate by conducting a performance test of STRU 47 and STRU 78 at the maximum operating rate possible 60 calendar days after Permit Issuance, and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date.<li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate.<li>3. Each Maximum Achievable Process Rate will be set to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.<li>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.<li>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit. <p>This procedure may change the control equipment operating parameter limits as described at TREA</p>

Requirement number	Requirement and citation
	<p>25 and TREA 37.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.12.4	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none">1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date.2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate.3. Each Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate.4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation.5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification. <p>This procedure may change the control equipment operating parameter limits as described at TREA 25 and TREA 37.</p>

Requirement number	Requirement and citation
	<p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.12.5	<p>Process Throughput: Short-term Process Throughput will be set by the permit as the process rate measured in gallons per minute 3-hour block average syrup feed rate during the first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance. The syrup feed rate will be measured from the syrup tank (EQUI 313) to the dryer (EQUI 218) based on a flowmeter (gpm), EQUI 336.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.12.6	<p>Process Throughput: Short-term Process Throughput will be set by the permit as the process rate measured in gallons per minute 3-hour block average syrup feed rate during the first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance. The centrifuge feed rate will be measured from the centrifuge (EQUI 231) to the dryer (EQUI 218) based on flowmeter (gpm), EQUI 337, EQUI 338 and EQUI 339.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits</p>

Requirement number	Requirement and citation
	<p>as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.12.7	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure VOC as mass, PM/PM10/PM2.5, NOx, and CO emission rates; VOC destruction efficiency, and HAP inlet and HAP outlet emissions factors as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for VOC as mass, PM/PM10/PM2.5, NOx, and CO emission rates; and VOC control efficiency. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the syrup feed rate and centrifuge feed rate and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average syrup feed rate and average centrifuge feed rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - If the test results are less than or equal to 80% of tested STRU 47 or STRU 78 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;

Requirement number	Requirement and citation
	<p>- If the test results are less than or equal to 80% of tested STRU 47 or STRU 78 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;</p> <p>- If the test results are greater than 80% of any STRU 47 or STRU 78 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;</p> <p>- If the test results are greater than 80% of any STRU 47 or STRU 78 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;</p> <p>- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack.</p> <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.12.8	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date.

Requirement number	Requirement and citation
	<p>2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput.</p> <p>3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification.</p> <p>The Permittee shall follow TFAC 2 requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.12.9	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.12.10	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]
EQUI 28	Office Generator
5.13.1	The Permittee shall limit Operating Hours <= 250 hours per year 12-month rolling sum. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.13.2	Opacity < 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]

Requirement number	Requirement and citation
5.13.3	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
5.13.4	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
5.13.5	Daily Recordkeeping. The Permittee shall install a non-resettable hour meter on EQUI 28. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.13.6	<p>Monthly Recordkeeping: By the 15th of the month, the Permittee shall calculate and record the following:</p> <p>(1) The total hours of operation for the previous calendar month based on the non-resettable hour meter; and</p> <p>(2) The 12-month rolling sum hours of operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.13.7	The Permittee shall change the oil filter every 1,440 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a), 40 CFR pt. 63, Subp. ZZZZ(Table 2d), Minn. R. 7011.8150]
5.13.8	The Permittee shall inspect spark plugs every 1,440 hours of operation or annually, whichever comes first and replace as necessary. [40 CFR 63.6603(a), 40 CFR pt. 63, Subp. ZZZZ(Table 2d), Minn. R. 7011.8150]
5.13.9	The Permittee shall inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6603(a), 40 CFR pt. 63, Subp. ZZZZ(Table 2d), Minn. R. 7011.8150]
5.13.10	The Permittee shall be in compliance with the emission limitations, operating limitations and other requirements in 40 CFR pt. 63, subp. ZZZZ that apply at all times. [40 CFR 63.6605(a), Minn. R. 7011.8150]
5.13.11	At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b), Minn. R.

Requirement number	Requirement and citation
	7011.8150]
5.13.12	The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), Minn. R. 7011.8150]
5.13.13	The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. [40 CFR 63.6625(h), Minn. R. 7011.8150]
5.13.14	The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis shall be performed at the same frequency specified for changing the oil. The analysis program shall at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 days or before commencing operation, whichever is later. The Permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [40 CFR 63.6625(j), Minn. R. 7011.8150]
5.13.15	The Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission related operation and maintenance instructions; or the Permittee shall develop and follow a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ(Table 6), Minn. R. 7011.8150]
5.13.16	The Permittee shall comply with the General Provisions in 40 CFR Section 63.1 through 63.15, as applicable. [40 CFR 63.1- 63.15, 40 CFR 63.6665, 40 CFR pt. 63, subp. ZZZZ(Table 8), Minn. R. 7011.8150]
5.13.17	The Permittee shall keep records of the maintenance conducted on the stationary RICE in order to

Requirement number	Requirement and citation
	demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan. [40 CFR 63.6655(e), Minn. R. 7011.8150]
5.13.18	The Permittee shall keep records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150]
5.13.19	The Permittee shall report each instance in which the stationary RICE did not meet each applicable emission limitation or operating limitation. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. [40 CFR 63.10(d)(1), 40 CFR 63.6640(b), Minn. R. 7011.8150]
5.13.20	The Permittee shall report each instance when the applicable requirements in Table 8 of 40 CFR pt. 63, subp. ZZZZ were not met. [40 CFR 63.10(d)(1), 40 CFR 63.6640(e), 40 CFR pt. 63, subp. ZZZZ(Table 8), Minn. R. 7011.8150]
5.13.21	Prohibited Activities: No Permittee must operate any affected source in violation of the requirements of 40 CFR pt. 63. [40 CFR 63.4(a), Minn. R. 7011.0050, subp. 1(B)]
5.13.22	Circumvention: The Permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere or (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. [40 CFR 63.4(b), Minn. R. 7011.0050, subp. 1(B)]
5.13.23	Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR pt. 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site. [40 CFR 63.10(b)(1), Minn. R. 7019.0100, subp. 2(B)]
EQUI 47	DDGS Dryer #2 with Multiclone (SV 012)
5.14.1	The Permittee shall vent emissions from EQUI 47 to TREA 6 whenever EQUI 47 operate, and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee shall document periods of non-operation of the control equipment TREA 6 whenever EQUI 47 are operating. [CAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat.]

Requirement number	Requirement and citation
	116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
EQUI 54	DDGS Dryer #1 with Multiclone (SV012)
5.15.1	The Permittee shall vent emissions from EQUI 54 to TREA 6 whenever EQUI 54 operate, and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee shall document periods of non-operation of the control equipment TREA 6 whenever EQUI 54 are operating. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
EQUI 73	Ethanol Loading Rack #2
5.16.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.16.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.16.3	The Permittee shall loadout to trucks only, and shall collect and vent all truck loadout emissions from EQUI 73 to a flare meeting the requirements of TREA 3. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
EQUI 179	Dump Pit #1
5.17.1	Opacity <= 5 percent opacity for uncaptured emissions from any truck or railcar unloading station. [Minn. R. 7011.1005, subp. 3(A)]
5.17.2	<p>Visible Emissions Readings: At least once each day of operation, the Permittee shall conduct visible emissions (VE) readings at the downwind Grain Receiving/DDGS Loadout building door using the Alternative Test Method for Visual Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit while grain is being received. If after one year of documented VE readings that no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while grain is being received. If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. The Permittee must report a deviation, unless opacity readings conducted by the Permittee as described below are less than the opacity limit.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this</p>

Requirement number	Requirement and citation
	<p>permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit using a certified observer. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]</p>
5.17.3	<p>Hours <= 14 hours per day 12-month rolling sum of grain receiving operations by truck. Grain receiving by truck occurs between 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.17.4	<p>Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECP) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. The Permittee shall maintain a record that describes the corrective actions taken. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.17.5	<p>Recordkeeping of Visible Emissions. The Permittee shall maintain records as described in the Alternative Test Method for Visible Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission, and weather conditions, such as wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity readings less than the permit limits are observed and documented. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, supbs. 4-5]</p>
5.17.6	<p>Recordkeeping of Opacity Readings. The Permittee shall maintain records as described in the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the permitted opacity limits are exceeded, the observer must note which equipment was in operation, which equipment or activity was the likely source of the opacity, and weather conditions, such as wind direction and estimated speed. An exceedance of the opacity limit is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R.</p>

Requirement number	Requirement and citation
	7007.0800, subps. 4-5]
5.17.7	Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation for the day and the date, day and time that the first and last grain receiving truck is received at the facility. This shall be based on written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
EQUI 180	Dump Pit #2
5.18.1	Opacity <= 5 percent opacity for uncaptured emissions from any truck or railcar unloading station. [Minn. R. 7011.1005, subp. 3(A)]
5.18.2	<p>Visible Emissions Readings: At least once each day of operation, the Permittee shall conduct visible emissions (VE) readings at the downwind Grain Receiving/DDGS Loadout building door using the Alternative Test Method for Visual Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit while grain is being received. If after one year of documented VE readings that no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while grain is being received. If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. The Permittee must report a deviation, unless opacity readings conducted by the Permittee as described below are less than the opacity limit.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit using a certified observer. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]</p>
5.18.3	Hours <= 14 hours per day 12-month rolling sum of grain receiving operations by truck. Grain receiving by truck occurs between 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.

Requirement number	Requirement and citation
	7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.18.4	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECPC) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. The Permittee shall maintain a record that describes the corrective actions taken. [Minn. R. 7007.0800, subp. 2(A)]
5.18.5	Recordkeeping of Visible Emissions. The Permittee shall maintain records as described in the Alternative Test Method for Visible Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission, and weather conditions, such as wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity readings less than the permit limits are observed and documented. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.18.6	Recordkeeping of Opacity Readings. The Permittee shall maintain records as described in the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the permitted opacity limits are exceeded, the observer must note which equipment was in operation, which equipment or activity was the likely source of the opacity, and weather conditions, such as wind direction and estimated speed. An exceedance of the opacity limit is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.18.7	Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation for the day and the date, day and time that the first and last grain receiving truck is received at the facility. This shall be based on written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
EQUI 181	Dump Pit #3
5.19.1	Opacity <= 5 percent opacity for uncaptured emissions from any truck or railcar unloading station. [Minn. R. 7011.1005, subp. 3(A)]
5.19.2	Visible Emissions Readings: At least once each day of operation, the Permittee shall conduct visible emissions (VE) readings at the downwind Grain Receiving/DDGS Loadout building door using the

Requirement number	Requirement and citation
	<p>Alternative Test Method for Visual Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit while grain is being received. If after one year of documented VE readings that no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while grain is being received. If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. The Permittee must report a deviation, unless opacity readings conducted by the Permittee as described below are less than the opacity limit.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit using a certified observer. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]</p>
5.19.3	<p>Hours <= 14 hours per day 12-month rolling sum of grain receiving operations by truck. Grain receiving by truck occurs between 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.19.4	<p>Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECp) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. The Permittee shall maintain a record that describes the corrective actions taken. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.19.5	<p>Recordkeeping of Visible Emissions. The Permittee shall maintain records as described in the Alternative Test Method for Visible Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If visible emissions are identified, the observer should</p>

Requirement number	Requirement and citation
	note which equipment was in operation, which equipment or activity was the likely source of the visible emission, and weather conditions, such as wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity readings less than the permit limits are observed and documented. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.19.6	Recordkeeping of Opacity Readings. The Permittee shall maintain records as described in the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the permitted opacity limits are exceeded, the observer must note which equipment was in operation, which equipment or activity was the likely source of the opacity, and weather conditions, such as wind direction and estimated speed. An exceedance of the opacity limit is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.19.7	Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation for the day and the date, day and time that the first and last grain receiving truck is received at the facility. This shall be based on written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
EQUI 209	DDGS Loadout (truck)
5.20.1	Hours <= 14 hours per day 12-month rolling sum of DDGS loadout (truck). DDGS loadout (truck) occurs between 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.00200-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.20.2	Opacity <= 10 percent opacity from DDGE truck loading station. [Minn. R. 7011.1005, subp. 3(B)]
5.20.3	Opacity <= 5 percent opacity from DDGS railcar loading station. [Minn. R. 7011.1005, subp. 3(A)]
5.20.4	Visible Emissions Readings: At least once each day of operation, the Permittee shall conduct visible emissions (VE) readings at the downwind overhead Grain Receiving/DDGS Loadout building door using the Alternative Test Method for Visual Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit while DDGS is being loaded into a truck or railcar. If after one year of documented VE readings that no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while DDGS is being loaded into a truck or railcar. If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. The Permittee must report a deviation, unless opacity readings conducted by the Permittee as described below are less than the opacity limit.

Requirement number	Requirement and citation
	<p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit using a certified observer. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]</p>
5.20.5	<p>Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible, unless the Permittee determines that the opacity is less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECPP) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. The Permittee shall maintain a record that describes the corrective actions taken. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.20.6	<p>Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation for the day and the date, day and time that the first and last DDGS loadout truck is received at the facility. This shall be based on written logs. [Minn. R. 7007.0800, subsps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.20.7	<p>Recordkeeping of Visible Emissions. The Permittee shall maintain records as described in the Alternative Test Method for Visible Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission, and weather conditions, such as wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity readings less than the permit limits are observed and documented. If the Permittee determines and documents that the opacity</p>

Requirement number	Requirement and citation
	<p>results are less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations, the Permittee is not required to take corrective actions, nor report a deviation. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]</p>
5.20.8	<p>Recordkeeping of Opacity Readings. The Permittee shall maintain records as described in the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the permitted opacity limits are exceeded, the observer must note which equipment was in operation, which equipment or activity was the likely source of the opacity, and weather conditions, such as wind direction and estimated speed. An exceedance of the opacity limit is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]</p>
EQUI 210	DDGS Loadout (railcar)
5.21.1	Opacity <= 10 percent opacity from DDGS truck loading station. [Minn. R. 7011.1005, subp. 3(B)]
5.21.2	Opacity <= 5 percent opacity from DDGS railcar loading station. [Minn. R. 7011.1005, subp. 3(A)]
5.21.3	<p>Visible Emissions Readings: At least once each day of operation, the Permittee shall conduct visible emissions (VE) readings at the downwind overhead Grain Receiving/DDGS Loadout building door using the Alternative Test Method for Visual Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit while DDGS is being loaded into a truck or railcar. If after one year of documented VE readings that no visible emissions are recorded, the Permittee may reduce the frequency to once each week of operation while DDGS is being loaded into a truck or railcar. If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible. The Permittee must report a deviation, unless opacity readings conducted by the Permittee as described below are less than the opacity limit.</p> <p>If the VE readings are conducted by a certified opacity reader, the Permittee has the option of immediately determining the opacity from the emissions source using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the opacity results are less than the permit requirement, the Permittee is not required to take further corrective actions, nor report a deviation. If any corrective actions are to be reversed subsequent to the opacity readings (such as opening a door), a subsequent VE reading shall be conducted to verify that no visible emissions are present. The Permittee shall maintain records of all observations.</p> <p>As an alternative to conducting the initial VE readings, the Permittee may determine initial</p>

Requirement number	Requirement and citation
	compliance with the opacity limits using the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit using a certified observer. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4]
5.21.4	Corrective Actions: If visible emissions are observed, the Permittee must take corrective actions to eliminate visible emissions as soon as possible, unless the Permittee determines that the opacity is less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations. Corrective actions should include, but are not limited to, O&M and best management practices outlined in the Fugitive Emission Control Plan (FECPP) for the operations. Corrective actions shall return the affected facility operation to a condition where there are no visible emissions. The Permittee shall maintain a record that describes the corrective actions taken. [Minn. R. 7007.0800, subp. 2(A)]
5.21.5	Recordkeeping of Visible Emissions. The Permittee shall maintain records as described in the Alternative Test Method for Visible Emissions Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If visible emissions are identified, the observer should note which equipment was in operation, which equipment or activity was the likely source of the visible emission, and weather conditions, such as wind direction and estimated speed. Identification of visible emissions is a deviation and must be reported unless opacity readings less than the permit limits are observed and documented. If the Permittee determines and documents that the opacity results are less than the permit requirement using the Alternative Test Method for Opacity Determination for Intermittent Dust Generating Operations, the Permittee is not required to take corrective actions, nor report a deviation. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.21.6	Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation for the day and the date, day and time that the first and last DDGS loadout truck is received at the facility. This shall be based on written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.21.7	Recordkeeping of Opacity Readings. The Permittee shall maintain records as described in the Alternative Test Method for Opacity Determination for Intermittent Dust-Generating Operations found in Appendix J of this permit. If the permitted opacity limits are exceeded, the observer must note which equipment was in operation, which equipment or activity was the likely source of the opacity, and weather conditions, such as wind direction and estimated speed. An exceedance of the opacity limit is a deviation and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
EQUI 211	Emergency Fire Pump Engine
5.22.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.22.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.22.3	The Permittee shall 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 Section 80.510(b). [40 CFR 60.4207(b), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]
5.22.4	The Permittee shall limit Particulate Matter <= 0.15 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]
5.22.5	The Permittee shall limit NMHC+NOx <= 3.0 grams per horsepower-hour. [40 CFR 60.4205(c), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]
5.22.6	Fuel type: Diesel fuel meeting the requirements of 40 CFR Section 1090.305 only by design. [Minn. R. 7005.0100, subp. 35a]
5.22.7	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, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.22.8	EQUI 211 must meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements apply for EQUI 211 under 40 CFR pt. 63, subp. ZZZZ. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
5.22.9	The Permittee must install a non-resettable hour meter prior to startup of the emergency engine. [40 CFR 60.4209(a), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]
5.22.10	The Permittee shall operate and maintain the stationary CI ICE in accordance with the emission standards as required in Sections 60.4204 and 60.4205, and according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change those settings that are permitted by the manufacturer. [40 CFR 60.4206, 40 CFR 60.4211(a), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]
5.22.11	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a);

Permit Issued: [month day, year]
Permit Expires: [month day, year]

Requirement number	Requirement and citation
	40 CFR 60.1(b);
	40 CFR 60.1(c);
	40 CFR 60.2;
	40 CFR 60.3;
	40 CFR 60.4;
	40 CFR 60.5(a);
	40 CFR 60.5(b);
	40 CFR 60.6(a);
	40 CFR 60.6(b);
	40 CFR 60.6(c);
	40 CFR 60.7(a)(1);
	40 CFR 60.7(a)(3);
	40 CFR 60.7(a)(4);
	40 CFR 60.7(b);
	40 CFR 60.7(f);
	40 CFR 60.7(g);
	40 CFR 60.9;
	40 CFR 60.10(a);
	40 CFR 60.10(b);
	40 CFR 60.11(d);
	40 CFR 60.11(f);
	40 CFR 60.12;
	40 CFR 60.14(a);
	40 CFR 60.14(c);
	40 CFR 60.14(e);
	40 CFR 60.14(f);
	40 CFR 60.14(g);
	40 CFR 60.15(a);
	40 CFR 60.15(b);
	40 CFR 60.15(c);
	40 CFR 60.15(d);
	40 CFR 60.15(e);
	40 CFR 60.15(f);
	40 CFR 60.15(g);
	40 CFR 60.17;

Requirement number	Requirement and citation
	<p>40 CFR 60.19(a); 40 CFR 60.19(b); 40 CFR 60.19(c); 40 CFR 60.19(d); 40 CFR 60.19(e); 40 CFR 60.19(f)(1); 40 CFR 60.19(f)(2); 40 CFR 60.19(f)(3); and 40 CFR 60.19(f)(4).</p> <p>A copy of 40 CFR pt. 60, subp. A 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 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 60.4218, 40 CFR 63.6590(c)(1), 40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-1500, Minn. R. 7011.0050, Minn. R. 7011.2305, Minn. R. 7011.8150, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.22.12	<p>The Permittee must demonstrate compliance with the emissions standards of 40 CFR Section 60.4205(c) according to one of the following methods:</p> <p>(1) Purchase an engine certified according to 40 CFR Part 89 or 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according the manufacturer's specifications.</p> <p>(2) Keep record of the performance test for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in 40 CFR pt. 60, subp. IIII, and must have been followed correctly.</p> <p>(3) Keep records of engine manufacturer data indicating compliance with the standards.</p> <p>(4) Keep records of control device vendor data indicating compliance with the standards.</p> <p>(5) Conduct an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR Section 60.4212. [40 CFR 60.4211(b), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]</p>
5.22.13	<p>The purchased engine must be certified to the emission standards in 40 CFR Section 60.4205(c) for the same model year and NFPA nameplate engine power. The engine must be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]</p>

Requirement number	Requirement and citation
5.22.14	<p>The Permittee may conduct maintenance checks and readiness testing provided that the tests are recommended by Federal, State, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing are limited to 100 hours/year. There is no time limit on the use of emergency stationary ICE in emergency situations unless otherwise prohibited by the permit. The Permittee may petition the Administrator for approval of additional hours. A petition is not required if the Permittee maintains records indicating that the Federal, State or local standards require maintenance and testing beyond 100 hours/year. [40 CFR 60.4211(f), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]</p>
5.22.15	<p>Emergency stationary ICE may operate up to 50 hours/year in non-emergency situations, but those 50 hours are counted towards the 100 hours/year provided for maintenance and testing. The 50 hours/year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours/year, as permitted in this section, is prohibited. [40 CFR 60.4211(f), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]</p>
5.22.16	<p>If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b), 40 CFR 63.6590(c)(1), Minn. R. 7011.2305, Minn. R. 7011.8150]</p>
5.22.17	<p>The Permittee must use engine best management practices (BMPs) to minimize the release of pollutants as defined in this permit for all emergency engines, including existing, modified or new emergency engines.</p> <p>Best Management Practices for Emergency Internal Combustion Engines</p> <ol style="list-style-type: none"> 1. The Permittee shall only use No. 2 fuel oil, No. 1 fuel oil, biodiesel, and biodiesel blends with a sulfur content of less than or equal to 15 ppm or natural gas in the emergency engines. 2. The Permittee may not install a rain cap on any of the emergency engine stacks. 3. The Permittee shall make the test runs for each engine as short as allowed by insurance and building code considerations. 4. The testing for an emergency engine shall not occur while another emergency engine is being tested. 5. No testing shall be conducted on a day the Air Quality Index (AQI) or the forecasted AQI exceeds 90

Requirement number	Requirement and citation
	<p>unless the test cannot be deferred. For testing conducted on a day with the AQI above 90, document the reason it was not possible to defer the test and any actions that were taken to limit emissions during the test with the testing records.</p> <p>6. The AQI and the forecasted AQI can be found at: http://www.pca.state.mn.us/index.php/air/air-quality-and-pollutants/general-air-quality/air-quality-index/current-air-quality-index.html. [Minn. R. 7007.0800, subp. 2, Minn. R. 7007.0800, subps. 4-5]</p>
5.22.18	<p>During every test of each emergency engine, record the following information:</p> <ol style="list-style-type: none"> 1. The unit that was tested; 2. The date; 3. The time the test started; 4. The time the test was completed; and 5. The Air Quality Index (AQI). [Minn. R. 7007.0800, subp. 2, Minn. R. 7007.0800, subps. 4-5]
5.22.19	<p>The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]</p>
5.22.20	<p>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]</p>
EQUI 218	DDGS Dryer (with Multiclone)
5.23.1	<p>The Permittee shall vent emissions from the DDGS Dryer (with Multiclone) (EQUI 218) to the RTO (TREA 25) whenever EQUI 218 operates. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.23.2	<p>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)]</p>
5.23.3	<p>Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]</p>
EQUI 285	Regulation Station
5.24.1	<p>Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]</p>
5.24.2	<p>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]</p>
5.24.3	<p>Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]</p>

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

Requirement number	Requirement and citation
EQUI 286	Unit Heater #1
5.25.1	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.25.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.25.3	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
EQUI 287	Unit Heater #2
5.26.1	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.26.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.26.3	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
EQUI 288	Unit Heater #3
5.27.1	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.27.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.27.3	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
EQUI 289	Unit Heater #4
5.28.1	Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.00745 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.28.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.28.3	Fuel type: Natural gas only. [Minn. R. 7005.0100, subp. 35a]
EQUI 344	IGE Temporary Frac Tank 1
5.29.1	The Permittee shall not operate EQUI 344 after issuance of permit no. 03900028-102. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 345	IGE Temporary Frac Tank 2
5.30.1	The Permittee shall not operate EQUI 345 after issuance of permit no. 03900028-102. [Minn. R. 7007.0800, subp. 2(A)]

Requirement number	Requirement and citation
EQUI 346	IGE Temporary Truck Loadout
5.31.1	The Permittee shall not operate EQUI 346 after issuance of permit no. 03900028-102. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 353	IGE 300K Storage Tank 1
5.32.1	Each railcar loaded from EQUI 353 shall be dedicated as undenatured ethanol only and shipped in certified clean cargo containers. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.32.2	Recordkeeping – Clean Cargo Certification: the Permittee shall obtain and maintain a clean cargo certification for each railcar loading out from EQUI 353 certifying that each container has been cleaned to maintain product integrity. The certification shall include the name of the hauler and the method used to clean the container. Clean cargo certified railcars may be refilled with undenatured ethanol without getting a new certification provided the railcars are refilled with undenatured ethanol each time. Maintain written or electronic records all railcars refilled with undenatured ethanol under the same clean cargo certification. [Minn. R. 7007.0800, subps. 4-5]
EQUI 354	IGE 300K Storage Tank 2
5.33.1	Each truck loaded from EQUI 354 shall be dedicated as undenatured ethanol only and shipped in certified clean cargo containers. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.33.2	Recordkeeping – Clean Cargo Certification: the Permittee shall obtain and maintain a clean cargo certification for each railcar loaded from EQUI 354 certifying that each container has been cleaned to maintain product integrity. The certification shall include the name of the hauler and the method used to clean the container. [Minn. R. 7007.0800, subps. 4-5]
EQUI 382	500 Gallon Gasoline Tank
5.34.1	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 63.5; 40 CFR 63.6(a); 40 CFR 63.6(b)(1);

Permit Issued: [month day, year]
Permit Expires: [month day, year]

Requirement number	Requirement and citation
	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(f)(2);
	40 CFR 63.6(f)(3);
	40 CFR 63.6(g);
	40 CFR 63.6(i);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(2);
	40 CFR 63.7(a)(3);
	40 CFR 63.7(b);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(e)(2);
	40 CFR 63.7(e)(3);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(a)(1);
	40 CFR 63.8(a)(2);
	40 CFR 63.8(a)(4);
	40 CFR 63.8(b)(1);
	40 CFR 63.9(a);
	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(g);
	40 CFR 63.9(h);
	40 CFR 63.9(i);
	40 CFR 63.9(j);

Requirement number	Requirement and citation
	<p>40 CFR 63.9(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15.</p> <p>A copy of 40 CFR pt. 63, subp. A is included in Appendix L. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.11130, 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. 7011.7185, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.34.2	<p>The Permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11115(a), Minn. R. 7011.7185]</p>
5.34.3	<p>The Permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:</p> <ol style="list-style-type: none"> 1. Minimize gasoline spills;

Requirement number	Requirement and citation
	2. Clean up spills as expeditiously as practicable; 3. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; 4. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [40 CFR 63.11116(a), Minn. R. 7011.7185]
5.34.4	The Permittee is not required to submit notifications or reports as specified in 40 CFR Sections 63.11125, 63.11126 or 40 CFR pt. 63, subp. A, but the Permittee must have records available within 24 hours of a request by the Administrator to document the gasoline throughput. [40 CFR 63.11116(b), Minn. R. 7011.7185]
5.34.5	The Permittee shall keep records as follows: 1. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. 2. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11125(d), Minn. R. 7011.7185]
5.34.6	The Permittee shall record, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. [40 CFR 63.11126(b), Minn. R. 7011.7185]
EQUI 383	500 Gallon Gasoline Tank Nozzle
5.35.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.35.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.35.3	The Permittee shall limit Process Throughput <= 1,000 gallons per year 12-month rolling sum of gasoline dispensed 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]

Requirement number	Requirement and citation
5.35.4	Daily Gasoline Dispensing Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain records of the gallons of gasoline dispensed at the facility for the previous calendar day. This shall be based on fuel receipts. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.35.5	Monthly Gasoline Dispensing Recordkeeping: By the 15th day of each month, the Permittee must calculate and record the following: <ol style="list-style-type: none"> 1) The monthly gallons of gasoline dispensed during the previous month based on summing the daily gasoline dispensing records for that month; and 2) The 12-month rolling sum gasoline dispensed for the previous 12-month period by summing the monthly gasoline dispensing records for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
FUGI 3	Truck Traffic on Paved Roads - Paved Road
5.36.1	Denatured Ethanol Truck Traffic <= 180 trucks per day of denatured ethanol shipping by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.2	Grain Receiving Truck Traffic <= 627 trucks per day of grain receiving by truck. Daily grain receiving by truck limited to 14 hours/day from 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.3	Corn Oil Truck Traffic <= 22 trucks per day corn oil shipping by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0200 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.4	Denaturant Delivery (New Side) Truck Traffic <= 48 trucks per day denaturant delivery to the new side of the facility (EQUI 248) by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.5	Denaturant Delivery (Old Side) Truck Traffic <= 48 trucks per day denaturant delivery to the old side of the facility (EQUI 85 and EQUI 86) by truck. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.6	DDGS Loadout Truck Traffic <= 156 trucks per day DDGS loadout by truck. Daily DDGS loadout by truck limited to 14 hours/day from 6 am - 8 pm. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0200 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.7	Silt Content: less than or equal to 1.1 grams per square meter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.8	The Permittee shall follow the Fugitive Dust Emission Control Plan to minimize the fugitive dust emissions from facility operations. The Permittee shall keep a copy of the Plan onsite for use by facility staff and review by MPCA staff. [CAAA of 1990, Minn. R. 7007.0100, subps. 7(B), Minn. R.

Requirement number	Requirement and citation
	7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.36.9	The Permittee shall use water or mechanical means to remove or minimize identified fugitive dust emissions. [CAAA of 1990, Minn. R. 7007.0100, subps. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.36.10	The Permittee shall sweep/clean all paved roads at least once each calendar month. Anytime fugitive emissions are observed on facility roadways, the Permittee shall immediately eliminate fugitive emissions by sweeping those road segments and/or apply water or a chemical dust suppressant. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.0150, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.36.11	The Permittee shall perform weekly visual inspections of the roads, document inspections and any corrective actions taken. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.36.12	Once each calendar week, the Permittee shall visually inspect all paved surfaces to minimize or eliminate fugitive emissions. The facility shall maintain records of this inspection that include the date of inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a, Title I Condition: 40 CFR 52]
5.36.13	Daily Inspection and Recordkeeping: On each day of operation, the Permittee shall visually inspect all paved surfaces to minimize or eliminate fugitive emissions. The facility shall maintain records of this inspection that include the date of the inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]
5.36.14	Facility-Wide Speed Limit: The Permittee shall implement and enforce a facility-wide speed limit of 15 miles per hour. The Permittee must post the speed limit in a highly visible location near the facility entrance. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]
5.36.15	Monthly Sweeping Recordkeeping: At least once per calendar month, the Permittee shall record the time, date, and location that the facility paved surfaces were swept. [Minn. R. 7007.0800, subps. 4-5]
5.36.16	Daily Grain Receiving Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the time of day the first grain receiving truck enters the facility

Requirement number	Requirement and citation
	and the last grain receiving truck exits the facility as well as the number of grain receiving trucks entering the facility. This shall be based on written records. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.17	Daily Denaturant Delivery (Old Side) Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of denaturant delivery trucks entering the facility and delivering to the old side of the facility (EQUI 85 and EQUI 86). This shall be based on written records. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.18	Daily DDGS Loadout Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the time of day the first DDGS loadout truck enters the facility and the DDGS loadout truck exits the facility as well as the number of DDGS loadout trucks entering the facility. This shall be based on written records. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.19	Daily Denaturant Delivery (New Side) Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of denaturant delivery trucks entering the facility and delivering to the new side of the facility (EQUI 248). This shall be based on written records. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.36.20	Daily Corn Oil Production Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of corn oil production trucks entering the facility. This shall be based on written logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.36.21	Daily Denatured Ethanol Production Truck Traffic Recordkeeping: For each day of operation, the Permittee shall record and maintain records on site of the number of denatured ethanol shipping trucks entering the facility. This shall be based on written records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
FUGI 4	Cooling Towers - Cooling Tower
5.37.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.37.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
FUGI 5	Valves, Flanges, and Seals (tank leaks) - Equipment Leaks

Requirement number	Requirement and citation
5.38.1	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows:</p> <ul style="list-style-type: none"> 40 CFR 60.1(a); 40 CFR 60.1(b); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3); 40 CFR 60.7(a)(4); 40 CFR 60.7(b); 40 CFR 60.8(b); 40 CFR 60.8(d); 40 CFR 60.8(e); 40 CFR 60.11(a); 40 CFR 60.12; 40 CFR 60.14(a); 40 CFR 60.14(b); 40 CFR 60.14(c); 40 CFR 60.14(e); 40 CFR 60.14(f); 40 CFR 60.14(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. <p>A copy of 40 CFR pt. 60, subp. A 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 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. 7007.1150-1500, Minn. R. 7011.0050, Minn. R. 7011.2900(D), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]</p>
5.38.2	<p>Recordkeeping: The Permittee shall maintain a file of all measurements, maintenance, reports and records for at least five years. This requirement is more stringent than 40 CFR Section 60.7(f), which</p>

Requirement number	Requirement and citation
	specifies two years. [40 CFR 60.7(f), Minn. R. 7007.0800, subp. 5(C), Minn. R. 7019.0100, subp. 1]
5.38.3	The Permittee shall implement and comply with the requirements of 40 CFR pt. 60, subp. VVa. [CAAA of 1990, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.38.4	<p>The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. VVa as follows:</p> <p>40 CFR 60.480a(a)-(b); 40 CFR 60.481a; 40 CFR 60.482-1a(a); 40 CFR 60.482-1a(b); 40 CFR 60.482-1a(e); 40 CFR 60.482-1a(f); 40 CFR 60.482-1a(g); 40 CFR 60.482-2a; 40 CFR 60.482-3a; 40 CFR 60.482-4a; 40 CFR 60.482-5a; 40 CFR 60.482-6a; 40 CFR 60.482-7a; 40 CFR 60.482-8a; 40 CFR 60.482-9a; 40 CFR 60.482-10a; 40 CFR 60.482-11a; 40 CFR 60.483-1a; 40 CFR 60.483-2a; 40 CFR 60.484a(a); 40 CFR 60.484a(b); 40 CFR 60.484a(c); 40 CFR 60.485a; 40 CFR 60.486a(a)(1); 40 CFR 60.486a(a)(3); 40 CFR 60.486a(b)-(k); 40 CFR 60.487a(a)-(e); and 40 CFR 60.489a.</p>

Requirement number	Requirement and citation
	<p>A copy of 40 CFR pt. 60, subp. VVa is included in Appendix K.</p> <p>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. VVa, Minn. R. 7011.2900 (D)]</p>
5.38.5	<p>Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent. [40 CFR 60.482-10a(b), Minn. R. 7011.2900(D)]</p>
5.38.6	<p>Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 deg C. [40 CFR 60.482-10a(c), Minn. R. 7011.2900(D)]</p>
FUGI 7	Cooling Towers
5.39.1	<p>Opacity <= 20 percent opacity. This limit applies individually to each cooling tower. [Minn. R. 7011.0715, subp. 1(B)]</p>
5.39.2	<p>Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each cooling tower. [Minn. R. 7011.0715, subp. 1(A)]</p>
FUGI 12	Fermentation gas/vapor component leaks
5.40.1	<p>For the purposes of FUGI 12, the listed terms shall have the following specific definitions.</p> <p>"Connector" means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors.</p> <p>"Equipment" means each component on top of all fermenters and the beer well, including pressure relief and/or vacuum breaker valves, valve, agitators, access doors (i.e., manways), and connectors.</p>

Requirement number	Requirement and citation
	<p>"First attempt at repair" means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.</p> <p>"In organic HAP service" means a process unit that either contains or contacts a feedstock, byproduct, or product that contains an organic HAP, excluding any organic HAP used in manual cleaning activities. A process unit is no longer in organic HAP service after the unit has been emptied to the extent practicable (i.e., a unit with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.</p> <p>"Process unit" means each individual fermenter and beer well and the components assembled and connected by pipes or ducts that make up these units.</p> <p>"Process unit shutdown" means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:</p> <ol style="list-style-type: none"> 1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours. 2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown. 3) The use of spare equipment and technically feasible bypassing of equipment without stopping production. <p>"Quarter" means a 3-month period; the first quarter concludes on the last day of the last full month during the 90 days following permit issuance.</p> <p>"Repaired" means equipment is adjusted or otherwise altered, in order to eliminate a leak as defined in FUGI 12 and is monitored as specified in FUGI 12 to verify that emissions from the equipment are below the applicable leak definition. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.40.2	<p>The Permittee shall maintain a Master Component List at the facility that contains the following information for each component:</p> <ol style="list-style-type: none"> 1) Current monitoring frequency;

Requirement number	Requirement and citation
	<p>2) Type of component (pressure relief valve, vacuum breaker valve, valve, agitator, access door, or connector);</p> <p>3) Equipment description and ID (e.g., EQUI 31 â€ Fermenter #1, EQUI 32 â€ Fermenter #2, EQUI 33 â€ Fermenter #3, EQUI 35 â€ Fermenter #4, EQUI 36 â€ Fermenter #5, EQUI 37 â€ Fermenter #6, EQUI 174 â€ Fermenter #7, EQUI 175 â€ Fermenter #8, EQUI 176 â€ Fermenter #9 or EQUI 177 â€ Fermenter #10) of associated equipment;</p> <p>4) Unit identification for the component;</p> <p>5) Date the component was added; and</p> <p>6) Date the component was removed.</p> <p>The Permittee shall update the Master Component List as soon as practical after adding, modifying, or replacing components. The Master Component List shall be readily available onâ€ site. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]</p>
5.40.3	<p>The Permittee shall identify and affix a label with a unique number for each individual component on each fermenter and beer well. The components that need to be labeled are as follows:</p> <ol style="list-style-type: none"> 1) Pressure relief valves; 2) Vacuum breaker valves; 3) Valves; 4) Agitators; 5) Access doors (i.e., manways); and 6) Connectors. <p>The label must be identified in the Master Component List at the facility. The label can be affixed by placard, stencil, or other means. The label must be maintained so that it is readable and visible at all times. If components are added or replaced, they must be given a new unique label. Labels from replaced or removed components must not be reused. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 5, Title I Condition: 40 CFR 63.2]</p>
5.40.4	<p>Leak Monitoring for Valves and Agitators- The Permittee shall conduct monthly monitoring, except as described below, for each valve and agitator in the Master Component List to detect leaks using the methods and leak definitions specified in FUGI 12 of this permit.</p> <p>Any component for which a leak is not detected for 2 successive months may be monitored quarterly, beginning with the next quarter, until a leak is detected. If a leak is detected, the component shall return to monthly monitoring, beginning with the next month, until a leak is not detected for 2</p>

Requirement number	Requirement and citation
	successive months. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.5	Leak Monitoring for Connectors, Access doors, and Pressure relief, and Vacuum Breaker Valves - The Permittee shall conduct quarterly monitoring for each connector, access door, pressure relief valve, and vacuum breaker valve in the Master Component List to detect leaks using the methods and leak definitions specified in FUGI 12 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.6	Quarterly monitoring events must be separated by at least 30 calendar days. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4, Title I Condition: 40 CFR 63.2]
5.40.7	During monitoring events, the Permittee shall ensure the following: 1) Components are not isolated from the combined fermenter and beer well gas header system; and 2) The fermenters and beer well are operated under normal operating conditions as defined in this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 4, Title I Condition: 40 CFR 63.2]
5.40.8	Leak Definition for Pressure Relief Valves and Vacuum Breaker Valves: The Permittee shall maintain and operate all pressure relief valves and vacuum breaker valves with no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.9	Leak Definition for Access Doors, Agitators, Connectors, and Valves: The Permittee shall maintain and operate all access doors, agitators, and connectors with an instrument reading of less than 10,000 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.10	Method 21 of Appendix A-7 to 40 CFR pt. 60 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: 1) Zero air (less than 10 ppm of hydrocarbon in air); and 2) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.11	For no detectable emission monitoring in FUGI 12, the Permittee shall use Method 21 of Appendix A-7 to 40 CFR pt. 60 to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 63.2]

Requirement number	Requirement and citation
5.40.12	When a leak is detected, a first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.13	When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR Section 60.482â€ 9 â€ Standards: Delay of repair (DOR). For the purposes of FUGI 12 of this permit, the term "equipment" used in 40 CFR Section 60.482â€ 9 shall have the meaning specified in FUGI 12 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.14	When the leak repair is made, repair verification monitoring must be done within 5 calendar days of the repair to confirm the repair was successful. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.15	First attempts at repair include, but are not limited to, the following best practices where practicable: 1) Tightening of bonnet bolts; 2) Replacement of bonnet bolts; 3) Tightening of packing gland nuts; 4) Injection of lubricant into lubricated packing; and 5) Ensuring that the seal flush is operating at design pressure and temperature. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.16	The Permittee must maintain a supply of replacement parts adequate to accomplish potential repairs of components in the Master Component List for this program. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.17	Anytime pressure relief valves and/or vacuum breaker valves open (i.e., pressure release), the Permittee shall return the device to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background, as soon as practicable, but no later than 5 calendar days after the opening, except as described in 40 CFR Section 60.482â€ 9 â€ Standards: Delay of repair (DOR). For the purposes of FUGI 12 of this permit, the term "equipment" used in 40 CFR Section 60.482â€ 9 shall have the meaning specified in FUGI 12 of this permit. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.18	The Permittee shall conduct monitoring within 5 calendar days after a pressure release valve or vacuum breaker valve opening to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 parts per million of VOC above background. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.19	Each vessel that is equipped with an access hatch (i.e., manway) must be closed at all times when it is

Requirement number	Requirement and citation
	<p>in organic HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. An access hatch opening when in organic HAP service is considered a deviation as defined in Minn. R. 7007.0100, subp. 8a and must be reported. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]</p>
5.40.20	<p>The Permittee may designate a component as unsafe-to-monitor for the current monitoring period if personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of FUGI 12 for that specific monitoring period. If a component is deemed unsafe-to-monitor for a specific monitoring period, that component is exempt from the monitoring requirements in FUGI 12 only for that monitoring period. The Permittee shall maintain records of each individual component that is deemed as unsafe-to-monitor, an explanation of why the component is unsafe to monitor, and the plan for monitoring the component during the next monitoring period.</p> <p>This evaluation is for each individual component and is for one monitoring period only. The Permittee needs to reevaluate the unsafe-to-monitor designation for each monitoring period if the Permittee desires to maintain the designation for a specific component. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]</p>
5.40.21	<p>The Permittee shall record and maintain the following records for the fermenter and beer well leak detection and repair program:</p> <ol style="list-style-type: none"> 1) The date and reason for each monitoring event; 2) The background level measured during each monitoring; 3) The maximum instrument reading measured at each component during each monitoring event, including repair verification monitoring done following each repair attempt; 4) The date the leak was detected and the dates of each attempt to repair the leak; 5) Repair methods applied in each attempt to repair the leak; 6) For any leaking component for which repair was delayed, the reason repair was delayed, why it was technologically infeasible to repair, and the date the repair was ultimately made; 7) For any component that was designated as unsafe-to-monitor, an explanation for why the component is unsafe-to-monitor, and the plan for monitoring each component designated as unsafe-to-monitor; 8) The date of each occurrence of pressure relief and vacuum breaker valve "opening" and associated monitoring confirming that the pressure relief and/or vacuum breaker valve returned to a condition of no detectable emissions; 9) Instrument calibration logs and response time determinations per Method 21 of Appendix A-7 to 40 CFR pt. 60;

Requirement number	Requirement and citation
	10) The dates of process unit shutdowns; and 11) The date of successful repair of the leak. These records shall be kept on site for a minimum of 5 years. [Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 63.2]
5.40.22	The Permittee shall perform a root cause analysis and take corrective actions for every component that is placed on the delay of repair (DOR) list. In the root cause analysis, the Permittee must determine the cause of the DOR. The Permittee shall identify and implement corrective actions to reduce the likelihood of similar events requiring the use of DOR. The Permittee shall maintain records of the root cause analysis and any corrective actions taken. These records shall be kept on site for a minimum of 5 years. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 5, Title I Condition: 40 CFR 63.2]
FUGI 13	Unpaved roads at facility
5.41.1	Syrup Truck Traffic <= 10 trucks per day. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.41.2	Any unpaved areas are prohibited from parking during facility operation. Contractor and shutdown vehicles are allowed on unpaved areas only during facility shutdowns or breakdowns. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.41.3	Anytime fugitive emissions are observed on facility roadways, the Permittee shall immediately eliminate fugitive emissions by sweeping those road segments and/or apply water or a chemical dust suppressant. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]
5.41.4	Facility-Wide Speed Limit: The Permittee shall implement and enforce a facility-wide speed limit of 15 miles per hour. The Permittee must post the speed limit in a highly visible location near the facility entrance. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]
5.41.5	Daily Inspection and Recordkeeping: On each day of operation, the Permittee shall visually inspect all paved surfaces to minimize or eliminate fugitive emissions. The facility shall maintain records of this inspection that include the date of the inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.0150]
STRU 24	TO/HRSG
5.42.1	The Permittee shall vent emissions from all emission units that vent to STRU 24 to the TO/HRSG (TREA 6) whenever any emission unit that vents to STRU 24 operates except as otherwise authorized by this permit. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat.

Requirement number	Requirement and citation
	116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.2	Emissions from the thin stillage tank described in Appendix D of this permit or the Equipment Inventory as certified in the Annual Report are authorized by this permit to vent to either STRU 24 (indirect) or STRU 47 (indirect), and STRU 93 (direct). As of permit no. 03900028-102, this includes EQUI 309. See STRU 93 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.3	Emissions from the syrup tank described in Appendix D of this permit or the Equipment Inventory as certified in the Annual Report are authorized by this permit to vent to STRU 24 (indirect) and STRU 96 (direct). As of permit no. 03900028-102, this includes EQUI 312. See STRU 96 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.4	Emissions from the oil free syrup receiver tank described in Appendix D of this permit or the Equipment Inventory as certified in the Annual Report are authorized by this permit to vent to either STRU 24 (indirect), STRU 47 (indirect), or corn-oil loadout (indirect), and STRU 98 (direct). As of permit no. 03900028-102, this includes EQUI 314. See STRU 98 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.5	Emissions from the heavy phase tank as described in Appendix D of this permit or the Equipment Inventory as certified in the Annual Report are authorized by this permit to vent to either STRU 24 (indirect) or corn-oil loadout (indirect), and STRU 100 (direct). As of permit no. 03900028-102, this includes EQUI 316. See STRU 100 for applicable limits for direct emissions. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.6	The Permittee shall limit emissions of Carbon Monoxide <= 16.630 pounds per hour 3-hour average. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.42.7	The Permittee shall limit emissions of Particulate Matter <= 3.560 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.42.8	The Permittee shall limit emissions of Particulate Matter <= 5.220 pounds per hour 3-hour average. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07,

Requirement number	Requirement and citation
	subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.42.9	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to EQUI 47 and EQUI 54. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.42.10	The Permittee shall limit emissions of PM < 10 micron <= 3.560 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(2)(i) & Minn. R. 7007.3000]
5.42.11	The Permittee shall limit emissions of PM < 10 micron <= 5.220 pounds per hour 3-hour average when emissions are vented from EQUI 54 and EQUI 47. [CAAA of 1990, Minn. R. 7007.0100, subd. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.42.12	The Permittee shall limit emissions of PM < 2.5 micron <= 3.560 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.42.13	The Permittee shall limit emissions of Volatile Organic Compounds <= 2.50 pounds per hour 3-hour average as mass. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.42.14	The Permittee shall limit emissions of Volatile Organic Compounds <= 2.70 pounds per hour 3-hour average as total mass VOCs when emissions are vented from EQUI 54 and EQUI 47. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.42.15	The Permittee shall limit emissions of Nitrogen Oxides <= 7.280 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.42.16	The Permittee shall limit emissions of Nitrogen Oxides <= 7.440 pounds per hour 3-hour average when emissions are vented from EQUI 54 and EQUI 47. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.42.17	The Permittee shall limit emissions of Sulfur Dioxide <= 9.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A)]
5.42.18	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies individually to EQUI 47, EQUI 54 and TREA 6. [Minn. R. 7011.0610, subp. 1(A)(2)]

Requirement number	Requirement and citation
5.42.19	The Permittee shall use an outlet (controlled) emission factor for Acrolein \geq 0.03 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.20	The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde \geq 0.28 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.21	The Permittee shall use an outlet (controlled) emission factor for Formaldehyde \geq 0.16 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.22	The Permittee shall use an outlet (controlled) emission factor for Methanol \geq 0.12 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.23	The Permittee shall use an outlet (controlled) emission factor for Hexane \geq 0.33 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.24	Protocol(s) for Resetting HAP Emission Factors are located at COMG 3. [Minn. R. 7007.0800, subp. 2(A)]
5.42.25	<p>POLLUTION CONTROL REQUIREMENTS</p> <p>Refer to TREA 6 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.42.26	<p>Daily Recordkeeping of Hours of Operation for COMG 3 Calculations: The Permittee shall keep daily records of the following:</p> <p>1) Equipment downtime - the hours of operation that emissions are not vented to STRU 24. For</p>

Requirement number	Requirement and citation
	<p>periods of planned shutdown, the Permittee may identify the hours at the end of the planned shutdown period;</p> <p>2) Control Equipment downtime - the hours of operation that emissions vent to STRU 24 when associated control equipment (TREA 6) or control equipment monitors are not operating; and</p> <p>3) Monitor readings outside of Indicator Ranges - for each monitored parameter, the hours of operation that emissions vent to STRU 24 when associated control equipment (TREA 6) is operated outside of its permitted indicator range.</p> <p>If the Permittee does not maintain hourly records, and the monitor readings for TREA 6 are outside of the permitted Indicator Ranges, all operating hours, from the most recent reading within the Indicator Range to the next reading within the Indicator Range are recorded as operating outside of the permitted Indicator Ranges. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.42.27	<p>Monthly Recordkeeping of Hours of Operation for COMG 3 Calculations: By the 15th day of each month, the Permittee shall calculate and record, based on daily records from the previous month, the following for the previous calendar month:</p> <p>1) Monthly STRU 24 hours of equipment downtime;</p> <p>2) Monthly STRU 24 operating hours when TREA 6, or TREA 6 monitors were not operating;</p> <p>3) Monthly STRU 24 operating hours, for each monitored parameters when TREA 6 was operating at outside the permitted indicator ranges;</p> <p>4) Monthly STRU 24 uncontrolled HAP source hours of operation (A#u), the sum of items 2 and 3 above; and</p> <p>5) Monthly STRU 24 controlled HAP source hours of operation (A#c), the hours in the month minus the hours in items 1, 2, and 3 above. [Minn. R. 7007.0800, subps. 4-5]</p>
5.42.28	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 24, such equipment is subject to all of the requirements of STRU 24, as well as those listed at the total facility (TFAC 2), at COMG 3, at COMG 6, at COMG 19, and within the Permit Appendices.</p> <p>Additionally:</p> <p>1. Except as identified below, all of the existing, new, modified and replaced equipment that vents to STRU 24 as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by TREA 6 at all times that any of the equipment vents to STRU 24.</p>

Requirement number	Requirement and citation
	<p>This includes requirements for minimum control efficiency identified at TREA 6;</p> <p>2. Any increase in short-term process throughput rates beyond that authorized in the "Short-term Process Throughput" limits at COMG 19, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at COMG 19;</p> <p>3. The Permittee may not use the flexibility provisions of this permit to replace, add or modify any dryer (or dryer with multiclones) or heat recovery steam generator. The appropriate permit amendment must be submitted;</p> <p>4. Emissions of VOC as mass, PM, PM10, PM2.5, CO, NOx, SO2 must remain below the lb/hr limits specified at STRU 24;</p> <p>5. Emissions of HAPs must remain below the tons/year limits specified at COMG 3;</p> <p>6. The thin stillage tank (EQUI 309), syrup tank (EQUI 312), oil free syrup receiver tank (EQUI 314), oil centrifuge feed tank (EQUI 315) and heavy phase tank (EQUI 316) are permitted to allow for both direct emissions to the atmosphere (that vent to STRU 93, STRU 96, STRU 98, STRU 99, and STRU 100 respectively, and are supported by approved PTE calculations) as well as indirect emissions that vent to STRU 24 (and subject to control by TREA 6), STRU 47 (and subject to control by TREA 25), or corn-oil loadout. Indirect emissions that vent to STRU 24, STRU 47, or corn-oil loadout from any replaced, modified, or new thin stillage/syrup/oil free syrup receiver/centrifuge feed/heavy phase tank are subject to the requirements of STRU 24, STRU 47, TREA 6, and TREA 25. Direct emissions from, and applicable requirements for, any replaced, modified, or new thin stillage/syrup/oil free syrup receiver/centrifuge feed/heavy phase tank must meet the requirements of STRU 93, STRU 96, STRU 98, STRU 99 and STRU 100 respectively, and be as described in the applicable records for an insignificant modification, or in a permit application for a minor amendment, unless otherwise prohibited by this permit; and</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report.</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10, PM2.5, VOC, NOx and CO; VOC, Single - HAPs and CO control efficiency; and emission rate of HAPs - Single 60 days</p>

Requirement number	Requirement and citation
	<p>after an addition, modification or replacement of equipment that vents emissions to STRU 24. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.42.29	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>For emission units that vent to STRU 24 (material flow as well as gaseous flow), but also have the ability to vent a portion of emissions to the atmosphere, the calculations described in Minn. R. 7007.1200, subp. 2 and 3 must include a calculation of any emissions increase (lb/hr) from emissions that are vented to the atmosphere and not sent to STRU 24.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.42.30	<p>STRU 24 Operating Hours Monitoring and Recordkeeping:</p> <p>The Permittee shall monitor and record STRU 24 operating hours for use in COMG 3 HAP calculations. A "STRU 24 operating hour" is any hour during which any process equipment is operating that vents through STRU 24.</p> <p>For controlled hours, the Permittee shall monitor and keep records for STRU 24 operating hours when TREA 6 temperature is within their respective operating range(s) (listed under TREA 6 during the operating hour).</p> <p>For uncontrolled hours, the Permittee shall monitor and keep records for STRU 24 operating hours when TREA 6 temperature is outside their respective operating range(s) (listed under TREA 6 during the operating hour).</p> <p>If the Permittee only conducts daily TREA 6 temperature monitoring (and not hourly monitoring as described under TREA 6) and the monitored temperature is outside the required range(s), all</p>

Requirement number	Requirement and citation
	operating hours during that calendar day are recorded as TREA 6 operating outside the required range(s) for temperature. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.31	<p>Monthly Monitoring and Recordkeeping:</p> <p>By the 15th day of each month, the Permittee shall calculate and record the following for the previous calendar month:</p> <ol style="list-style-type: none"> 1. Monthly STRU 24 operating hours when TREA 6 was operating within the required range(s) for syrup feed rate and centrifuge feed rate. These are considered the controlled hours; and 2. Monthly STRU 24 operating hours when TREA 6 was operating outside the required range for syrup feed rate and centrifuge feed rate. These are considered the uncontrolled hours. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]
5.42.32	Performance Test Recordkeeping: During each performance test, the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 37	Fermentation System Scrubber
5.43.1	The Permittee shall vent emissions from all emission units venting to STRU 37 to a condenser meeting the permit requirements of TREA 42 in series with a scrubber meeting the permit requirements for TREA 16 whenever emission units venting to STRU 37 operate, and operate and maintain a condenser that meets the permit requirements of TREA 42 in series with a scrubber meeting the requirements of TREA 16 at all times that any emissions are vented to the scrubber meeting the requirements of TREA 16. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.2	AOS 1 and AOS 2: The Permittee shall limit emissions of Volatile Organic Compounds <= 20.80 pounds per hour 3-hour average as total mass of VOC. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.43.3	AOS 1: The Permittee shall limit emissions of Volatile Organic Compounds \leq 205.1 pounds per hour 3-hour average as total mass of VOC when emissions are vented from EQUI 31, EQUI 32 and EQUI 33. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a)]
5.43.4	AOS 2: The Permittee shall limit emissions of Volatile Organic Compounds \leq 322.7 pounds per hour 3-hour average as total mass of VOC when emissions are vented from EQUI 31, EQUI 32 and EQUI 33. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.43.5	Opacity \leq 20 percent. This limit applies individually to any unit that vents to STRU 37, that is not direct-heating equipment. [Minn. R. 7011.0715, subp. 1(B)]
5.43.6	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. This limit applies individually to any unit that vents to STRU 37, that is not direct-heating equipment. [Minn. R. 7011.0715, subp. 1(A)]
5.43.7	AOS 1: The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde \geq 0.11 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 1 (AOS 1). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.8	AOS 2: The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde \geq 1.25 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 2 (AOS 2). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.9	AOS 1: The Permittee shall use an outlet (controlled) emission factor for Acrolein \geq 0.14 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 1 (AOS 1). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.10	AOS 2: The Permittee shall use an outlet (controlled) emission factor for Acrolein \geq 0.14 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 2 (AOS 2). [Minn. R. 7007.0800,

Requirement number	Requirement and citation
	subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.11	AOS 1: The Permittee shall use an outlet (controlled) emission factor for Formaldehyde ≥ 0.052 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 1 (AOS 1). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.12	AOS 2: The Permittee shall use an outlet (controlled) emission factor for Formaldehyde ≥ 0.039 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 2 (AOS 2). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.13	AOS 1: The Permittee shall use an outlet (controlled) emission factor for Methanol ≥ 0.07 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 1 (AOS 1). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.14	AOS 2: The Permittee shall use an outlet (controlled) emission factor for Methanol ≥ 0.074 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation under TREA 16 Operating Scenario 2 (AOS 2). [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.15	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate will be determined by the first compliant performance test following permit issuance.</p>

Requirement number	Requirement and citation
	If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.43.16	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish each Maximum Achievable Process Rate by conducting a performance test at the maximum operating rate possible before 11/6/2022, and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date.<li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate.<li>3. Each Maximum Achievable Process Rate will be set to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.<li>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.<li>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum

Requirement number	Requirement and citation
	<p>Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit.</p> <p>This procedure may change the control equipment operating parameter limits.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.43.17	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. Each Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.

Requirement number	Requirement and citation
	<p>This procedure may change the control equipment operating parameter limits.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.43.18	<p>Process Throughput: Short-term Process Throughput will be set by the permit as the process rate measured in gallons per minute 3-hour block average liquefaction flow rate during the first compliant performance test of STRU 37 conducted 60 days after Permit Issuance. The liquefaction flow rate will be measured from the liquefaction tank (EQUI 232) to the fermenters (EQUIs 31, 32, 33, 35, 36, 37, 174, 175, 176, 177) based on a flowmeter (gpm), EQUI 327.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.19	<p>Short-term Process Throughput \leq 1,871 gallons per minute 3-hour block average beer output rate to distillation process as determined during the November 6, 2019 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits below. The beer output rate will be measured from the beerwell (EQUI 178) to the beer strippers (EQUI 45 and EQUI 238) based on the sum of parametric monitors (gpm), EQUI 328 and EQUI 384.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder</p>

Requirement number	Requirement and citation
	<p>or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1) (i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.20	<p>Protocol(s) for Resetting HAP Emission Factors are located at COMG 3. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.43.21	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure VOC as mass emission rates; VOC control efficiency and HAP outlet emissions factors as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for VOC as mass emission rates; and VOC control efficiency. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the beer output rate and liquefaction flow rate, and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average beer output rate and liquefaction flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - If the test results are less than or equal to 80% of tested STRU 37 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the

Requirement number	Requirement and citation
	<p>required number of test runs;</p> <ul style="list-style-type: none"> - If the test results are less than or equal to 80% of tested STRU 37 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate; - If the test results are greater than 80% of any STRU 37 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs; - If the test results are greater than 80% of any STRU 37 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate; - The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack. <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.22	<p>Procedure to Increase Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date.

Requirement number	Requirement and citation
	<p>2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of a performance test at a higher process throughput.</p> <p>3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.43.23	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.43.24	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.43.25	POLLUTION CONTROL REQUIREMENTS Refer to TREA 16 and TREA 42 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.43.26	Daily Recordkeeping of Hours of Operation for COMG 3 Calculations: The Permittee shall keep daily records of the following:

Requirement number	Requirement and citation
	<p>1) Equipment downtime - the hours of operation that emissions are not vented to STRU 37. For periods of planned shutdown, the Permittee may identify the hours at the end of the planned shutdown period;</p> <p>2) Control Equipment downtime - the hours of operation that emissions vent to STRU 37 when associated control equipment (TREA 16) or control equipment monitors are not operating; and</p> <p>3) Monitor readings outside of Indicator Ranges - for each monitored parameter, the hours of operation that emissions vent to STRU 37 when associated control equipment (TREA 16) is operated outside of its permitted indicator range.</p> <p>If the Permittee does not maintain hourly records, and the monitor readings for TREA 16 are outside of the permitted Indicator Ranges, all operating hours, from the most recent reading within the Indicator Range to the next reading within the Indicator Range are recorded as operating outside of the permitted Indicator Ranges. [Minn. R. 7007.0800, subs. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.27	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 37, such equipment is subject to all of the requirements of STRU 37, as well as those listed at the total facility (TFAC 2), at COMG 3, and within the Permit Appendicies.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, new, modified and replaced equipment that vents to STRU 37 while operating in AOS 1 or AOS 2, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a condenser that meets the requirements of TREA 42 operated in series with a scrubber that meets the requirements of TREA 16 at all times that any of the equipment vents to STRU 37. This includes requirements for minimum control efficiency identified at TREA 16; 2. Any increase in short-term process throughput rates beyond that authorized in the "Short-term Process Throughput" limits at STRU 37, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 37; 3. Emissions of VOC as mass must remain below the lb/hr limits specified at STRU 37; 4. Emissions of HAPs must remain below the tons/year limits specified at COMG 3; 5. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory

Requirement number	Requirement and citation
	<p>seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>6. The Permittee must conduct performance testing to verify emission rate of VOC; VOC and Single - HAPs control efficiency; and emission rate of HAPs - Single 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 37. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.28	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.43.29	<p>Performance Test Recordkeeping: During each performance test, the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.30	<p>STRU 37 Operating Hours Monitoring and Recordkeeping:</p> <p>The Permittee shall monitor and record STRU 37 operating hours for use in COMG 3 HAP calculations. A "STRU 37 operating hour" is any hour during which any process equipment is operating that vents through STRU 37.</p> <p>For controlled hours, the Permittee shall monitor and keep records for STRU 37 operating hours when TREA 16 AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop are within their respective operating range(s) (listed under TREA 16 during the operating hour).</p> <p>For uncontrolled hours, the Permittee shall monitor and keep records for STRU 37 operating hours when TREA 16 AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop are</p>

Requirement number	Requirement and citation
	<p>outside their respective operating range(s) (listed under TREA 16 during the operating hour).</p> <p>If the Permittee only conducts daily TREA 16 AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop monitoring (and not hourly monitoring as described under TREA 16) and the monitored AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop are outside the required range(s), all operating hours during that calendar day are recorded as TREA 16 operating outside the required range(s) for AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.43.31	<p>Monthly Monitoring and Recordkeeping:</p> <p>By the 15th day of each month, the Permittee shall calculate and record the following for the previous calendar month:</p> <ol style="list-style-type: none"> 1. Monthly STRU 37 operating hours when TREA 16 was operating within the required range(s) for AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop. These are considered the controlled hours; and 2. Monthly STRU 37 operating hours when TREA 16 was operating outside the required range for AOS 1/AOS 2 water flow rate, AOS 1/AOS 2 liquid flow rate, and pressure drop. These are considered the uncontrolled hours. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 38	Grain Handling Baghouse
5.44.1	<p>The Permittee shall vent emissions from all emission units that vent to STRU 38 to a fabric filter that meets the requirements of TREA 17 whenever any emission unit that vents to STRU 38 operates. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.44.2	<p>The Permittee shall limit emissions of Particulate Matter \leq 1.930 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.44.3	<p>The Permittee shall limit emissions of PM $<$ 10 micron \leq 1.930 pounds per hour 3-hour average. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.44.4	<p>The Permittee shall limit emissions of PM $<$ 2.5 micron \leq 1.930 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a),</p>

Requirement number	Requirement and citation
	Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.44.5	Opacity <= 5 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.44.6	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate is 1,120 tons per hour 3-hour block average based on grain receipts.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.44.7	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate.

Requirement number	Requirement and citation
	<p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.</p> <p>This procedure may change the control equipment operating parameter limits. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.44.8	<p>Short-term Process Throughput \leq 1120 tons per hour 3-hour block average grain received, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits below. The 3-hour block average is calculated by totaling total grain received during the 3-hour period and dividing by 3. The grain-receiving rate will be based on grain receipts (tph).</p> <p>The maximum throughput rate for grain receiving is 1,120 tons per hr based on grain receipts. The maximum rate addresses modeling considerations for associated uncaptured emissions.</p> <p>The Permittee must maintain at the facility adequate grain-receiving receipts and/or DDGS loadout receipts to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed Readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on Form DRF-2. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.44.9	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM10/PM2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded</p>

Requirement number	Requirement and citation
	<p>during the most recent MPCA-approved performance test where compliance was demonstrated for PM/PM10/PM2.5 emission rates. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the grain received and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain-receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average grain received for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none">- If the test results are less than or equal to 80% of tested STRU 38 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;- If the test results are less than or equal to 80% of tested STRU 38 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;- If the test results are greater than 80% of any STRU 38 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;- If the test results are greater than 80% of any STRU 38 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack.

Requirement number	Requirement and citation
	<p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.44.10	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.44.11	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
5.44.12	<p>POLLUTION CONTROL REQUIREMENTS Refer to TREA 17 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.44.13	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 38, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 38, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices. Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, new, modified and replaced equipment that vents to STRU 38 as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 17 at all times that any of the equipment is being operated; 2. A "Short-term Process Throughput" limit must exist at STRU 38, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 38; 3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term

Requirement number	Requirement and citation
	<p>Process Throughput" requirement at STRU 38, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 38 up to the maximum value allowable in the requirement;</p> <p>4. Emissions of PM, PM10 and PM2.5 shall remain below the lb/hr limits specified at STRU 38;</p> <p>5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit.;</p> <p>6. The total permanent grain storage capacity of the facility shall not exceed 2.5 million bushels;</p> <p>7. The Permittee may not use the flexibility provisions of this permit to replace, add or modify any grain receiving pit. The appropriate permit amendment must be submitted;</p> <p>8. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report;</p> <p>9. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 38. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R.. 7007.3000]</p>
5.44.14	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.44.15	<p>Performance Testing Recordkeeping: During each performance test, the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R.</p>

Requirement number	Requirement and citation
	7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
STRU 39	Grain Milling Baghouse
5.45.1	The Permittee shall vent emissions from all emission units that vent to STRU 39 to a fabric filter that meets the requirements of TREA 18, whenever any emission unit that vents to STRU 39 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.45.2	The Permittee shall limit emissions of Particulate Matter <= 1.540 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.45.3	The Permittee shall limit emissions of PM < 10 micron <= 1.540 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.45.4	The Permittee shall limit emissions of PM < 2.5 micron <= 1.540 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.45.5	Opacity <= 20 percent opacity. This limit applies individually to any unit that vents to STRU 39, that is not direct-heating equipment. [Minn. R. 7011.0715, subp. 1(B)]
5.45.6	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to any EQUI that vents to STRU 39 that is not direct-heating equipment. [Minn. R. 7011.0715, subp. 1(A)]
5.45.7	The Permittee shall vent emissions from all emission units that vent to STRU 39 to a fabric filter that meets the requirements of TREA 18, whenever any emission unit that vents to STRU 39 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 18 at all times that any emissions vent to it. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.45.8	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.45.9	POLLUTION CONTROL REQUIREMENTS Refer to TREA 18 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.45.10	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 39, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 39, as well as those listed at the total facility (TFAC 2), at COMG 20, and within the Permit Appendices.</p> <p>Additionally:</p> <ol style="list-style-type: none"><li>1. All of the existing, new, modified and replaced equipment that vents to STRU 39, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 18 at all times that any of the equipment is being operated;<li>2. A "Short-term Process Throughput" limit must exist at COMG 20, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 39;<li>3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term Process Throughput" requirement at COMG 20, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at COMG 20 up to the maximum value allowable in the requirement;<li>4. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 39;<li>5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit;<li>6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels;<li>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and

Requirement number	Requirement and citation
	8. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 39. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.45.11	Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change. A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]
STRU 40	DDGS Loadout Baghouse
5.46.1	The Permittee shall vent emissions from all emission units that vent to STRU 40 to a fabric filter that meets the requirements of TREA 19 whenever any emission unit that vents to STRU 40 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.46.2	The Permittee shall limit emissions of Particulate Matter ≤ 0.43 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.46.3	The Permittee shall limit emissions of PM < 10 micron ≤ 0.43 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.4	The Permittee shall limit emissions of PM < 2.5 micron ≤ 0.43 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.46.5	Opacity ≤ 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.46.6	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.

Requirement number	Requirement and citation
	<p>The Maximum Achievable Process Rate is 280 tons per hour 3-hour block average based on DDGS loadout receipts.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.46.7	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.

Requirement number	Requirement and citation
	<p>This procedure may change the control equipment operating parameter limits. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.46.8	<p>Short-term Process Throughput \leq 201.3 tons per hour 3-hour block average DDGS loadout rate, as determined during the September 11-13, 2018 performance test, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limits below. The 3-hour block average is calculated by totaling total DDGS loadout during the 3-hour period and dividing by 3. The DDGS loadout rate will be based on DDGS loadout receipts (tph).</p> <p>The maximum throughput rate for DDGS loadout rate is 280.0 tons per hr based on DDGS loadout receipts. The maximum rate addresses modeling considerations for associated uncaptured emissions.</p> <p>The Permittee must maintain at the facility adequate grain receiving receipts and/or DDGS loadout receipts to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits. Missed Readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on Form DRF-2. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.46.9	<p>Protocol for Resetting Short-Term Process Throughput Limits:</p> <p>The Permittee shall conduct performance testing to measure PM/PM10/PM2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for PM/PM10/PM2.5 emission rates. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the DDGS loadout rate and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period</p>

Requirement number	Requirement and citation
	<p>of the performance test. The Permittee shall calculate the average DDGS loadout rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none">- If the test results are less than or equal to 80% of tested STRU 40 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;- If the test results are less than or equal to 80% of tested STRU 40 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;- If the test results are greater than 80% of any STRU 40 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;- If the test results are greater than 80% of any STRU 40 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack. <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
5.46.10	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above. 4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification. <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.46.11	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.46.12	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits</p>

Requirement number	Requirement and citation
	and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.46.13	<p>POLLUTION CONTROL REQUIREMENTS</p> <p>Refer to TREA 19 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.46.14	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 40, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 40, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, new, modified and replaced equipment that vents to STRU 40 as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 19 at all times that any of the equipment is being operated; 2. A "Short-term Process Throughput" limit must exist at STRU 40, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 40; 3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term Process Throughput" requirement at STRU 40, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 40 up to the maximum value allowable in the requirement; 4. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 40; 5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit; 6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels;

Requirement number	Requirement and citation
	<p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 40. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.46.15	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.46.16	<p>Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
STRU 43	Corn Flour Conveyance Aspiration
5.47.1	<p>The Permittee shall vent emissions from all emission units that vent to STRU 43 to a fabric filter that meets the requirements of TREA 21, whenever any emission unit that vents to STRU 43 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.47.2	<p>The Permittee shall limit emissions of Particulate Matter ≤ 0.034 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.47.3	<p>The Permittee shall limit emissions of PM < 10 micron ≤ 0.034 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
5.47.4	The Permittee shall limit emissions of PM < 2.5 micron \leq 0.034 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.5	Opacity \leq 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.47.6	The Permittee shall vent emissions from all emission units that vent to STRU 43 to a fabric filter that meets the requirements of TREA 21 whenever emission unit that vents to STRU 43 operates, and shall operate and maintain a fabric filter that meets the requirements of TREA 21 at all times that any emissions vent to it. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.7	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.47.8	POLLUTION CONTROL REQUIREMENTS Refer to TREA 21 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.47.9	Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 43, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 43, as well as those listed at the total facility (TFAC 2), at COMG 20, and within the Permit Appendices. Additionally: <ol style="list-style-type: none"> 1. All of the existing, new, modified and replaced equipment that vents to STRU 43 as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 21 at all times that any of the equipment is being operated; 2. A "Short-term Process Throughput" limit must exist at COMG 20, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 43; 3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term

Requirement number	Requirement and citation
	<p>Process Throughput" requirement at COMG 20, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at COMG 20 up to the maximum value allowable in the requirement;</p> <p>4. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 43;</p> <p>5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit;</p> <p>6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels;</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 43. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.47.10	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
STRU 45	DDGS Storage Silo Fill Vent #1
5.48.1	Opacity <= 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.48.2	The Permittee shall limit emissions of Particulate Matter <= 0.130 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.48.3	The Permittee shall limit emissions of PM < 10 micron <= 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.48.4	The Permittee shall limit emissions of PM < 2.5 micron \leq 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.48.5	The Permittee shall vent emissions from all emission units that vent to STRU 45 to a fabric filter that meets the requirements of TREA 23 whenever emission units that vents to STRU 45 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.48.6	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 45, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 45, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, modified and replace equipment that vents to STRU 45, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 23 at all times that any of the equipment is being operated; 2. The maximum capacity of the replaced equipment may not exceed that listed in Appendix D of this permit, 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 45; 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., DDGS fill leg or DDGS bins) using the flexibility provisions of this permit; 5. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and 6. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 45.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.48.7	<p>Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
STRU 46	DDGS Cooling Cyclone
5.49.1	The Permittee shall limit emissions of Particulate Matter \leq 5.87 pounds per hour 3-hour average. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.49.2	The Permittee shall limit emissions of PM < 10 micron \leq 5.87 pounds per hour 1-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.3	The Permittee shall limit emissions of PM < 2.5 micron \leq 5.87 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.4	Volatile Organic Compounds \leq 4.00 pounds per hour 3-hour average as total mass of VOC. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.49.5	The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde \geq 0.02 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.49.6	The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde \geq 0.09 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.49.7	The Permittee shall use an outlet (uncontrolled) emission factor for Acrolein \geq 0.01 pounds per hour

Requirement number	Requirement and citation
	3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.49.8	The Permittee shall use an outlet (uncontrolled) emission factor for Methanol ≥ 0.03 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.49.9	Opacity ≤ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.49.10	Particulate Matter ≤ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.49.11	Protocol(s) for Resetting HAP Emission Factors are located at COMG 3. [Minn. R. 7007.0800, subp. 2(A)]
5.49.12	<p>Monthly Recordkeeping of Hours of Operation for COMG 3 Calculations: By the 15th day of each month, the Permittee shall calculate and record, based on daily records from the previous month, the following for the previous calendar month:</p> <p>1) Monthly STRU 46 hours of equipment downtime; and 2) Monthly STRU 46 uncontrolled HAP source hours of operation (A#u), the STRU 46 operating hours in the month minus the hours in item 1 above. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.49.13	<p>STRU 46 Operating Hours Monitoring and Recordkeeping:</p> <p>The Permittee shall monitor and record STRU 46 operating hours for use in COMG 3 HAP calculations. A "STRU 46 operating hour" is any hour during which any process equipment is operating that vents through STRU 46.</p> <p>For uncontrolled hours, the Permittee shall monitor and keep daily records for STRU 46 operating hours. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.49.14	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records

Requirement number	Requirement and citation
	must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 47	Distillation/Dryers/RTO
5.50.1	The Permittee shall vent emissions from all emission units that vent to STRU 47 to the RTO (TREA 25) whenever any emission unit that vents to STRU 47 operates except as otherwise authorized by this permit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.2	Emissions from the thin stillage tank described in Appendix D of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 24 or STRU 47 (indirect) or STRU 93 (direct). As of permit no. 03900028-102, this includes EQUI 309. See STRU 93 for applicable limits for direct emissions. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.3	Emissions from the syrup tank venting to STRU 97 as described in Appendix D of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 47 (indirect) or STRU 97 (direct). As of permit no. 03900028-102, this includes EQUI 313. See STRU 97 for applicable limits for direct emissions. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.4	Emissions from the syrup tank venting to STRU 98 as described in Appendix D of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 24, STRU 47 or corn-oil loadout (indirect) or STRU 98 (direct). As of permit no. 03900028-102, this includes EQUI 314. See STRU 98 for applicable limits for direct emissions. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.5	Emissions from the syrup tank venting to STRU 99 as described in Appendix D of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 24, STRU 47 or corn-oil loadout (indirect) or STRU 99 (direct). As of permit no. 03900028-102, this includes EQUI 315. See STRU 99 for applicable limits for direct emissions. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.6	The Permittee shall limit emissions of Volatile Organic Compounds <= 3.08 pounds per hour 3-hour average as mass. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.50.7	The Permittee shall limit emissions of Particulate Matter <= 0.793 pounds per hour 3-hour average.

Requirement number	Requirement and citation
	[Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.50.8	The Permittee shall limit emissions of PM < 10 micron <= 4.94 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.9	The Permittee shall limit emissions of PM < 2.5 micron <= 4.94 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.10	The Permittee shall limit emissions of Nitrogen Oxides <= 10.10 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.11	The Permittee shall limit emissions of Carbon Monoxide <= 12.67 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.50.12	The Permittee shall limit emissions of Sulfur Dioxide <= 2.02 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A)]
5.50.13	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to any unit that vents to STRU 47, except for the dryer (EQUI 218). [Minn. R. 7011.0715, subp. 1(A)]
5.50.14	The Permittee shall use an outlet (controlled) emission factor for Acetaldehyde >= 0.512 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.15	The Permittee shall use an inlet (uncontrolled) emission factor for Acetaldehyde >= 5.12 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.16	The Permittee shall use an outlet (controlled) emission factor for Acrolein >= 0.068 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]

Requirement number	Requirement and citation
5.50.17	The Permittee shall use an inlet (uncontrolled) emission factor for Acrolein \geq 0.68 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.18	The Permittee shall use an outlet (controlled) emission factor for Formaldehyde \geq 0.185 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.19	The Permittee shall use an inlet (uncontrolled) emission factor for Formaldehyde \geq 1.85 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.20	The Permittee shall use an outlet (controlled) emission factor for Methanol \geq 0.292 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.21	The Permittee shall use an inlet (uncontrolled) emission factor for Methanol \geq 2.92 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.22	The Permittee shall use an outlet (controlled) emission factor for Hexane \geq 0.26 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of controlled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.23	The Permittee shall use an inlet (uncontrolled) emission factor for Hexane \geq 2.6 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for periods of

Requirement number	Requirement and citation
	uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.24	Opacity <= 20 percent opacity. This limit applies individually to units that vent to STRU 47, except for the dryer (EQUI 218). [Minn. R. 7011.0715, subp. 1(B)]
5.50.25	Protocol(s) for Resetting HAP Emission Factors are located at COMG 3. [Minn. R. 7007.0800, subp. 2(A)]
5.50.26	POLLUTION CONTROL REQUIREMENTS Refer to TREA 25 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.50.27	<p>Daily Recordkeeping of Hours of Operation for COMG 3 Calculations: The Permittee shall keep daily records of the following:</p> <ol style="list-style-type: none"> 1) Equipment downtime - the hours of operation that emissions are not vented to STRU 47. For periods of planned shutdown, the Permittee may identify the hours at the end of the planned shutdown period; 2) Control Equipment downtime - the hours of operation that emissions vent to STRU 47 when associated control equipment (TREA 25) or control equipment monitors are not operating; and 3) Monitor readings outside of Indicator Ranges - for each monitored parameter, the hours of operation that emissions vent to STRU 47 when associated control equipment (TREA 25) is operated outside of its permitted indicator range. <p>If the Permittee does not maintain hourly records, and the monitor readings for TREA 25 are outside of the permitted Indicator Ranges, all operating hours, from the most recent reading within the Indicator Range to the next reading within the Indicator Range are recorded as operating outside of the permitted Indicator Ranges. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.50.28	<p>Monthly Recordkeeping of Hours of Operation for COMG 3 Calculations: By the 15th day of each month, the Permittee shall calculate and record, based on daily records from the previous month, the following for the previous calendar month:</p> <ol style="list-style-type: none"> 1) Monthly STRU 47 hours of equipment downtime; 2) Monthly STRU 47 operating hours when TREA 25, or TREA 25 monitors were not operating; 3) Monthly STRU 47 operating hours, for each monitored parameters when TREA 25 was operating at outside the permitted indicator ranges; 4) Monthly STRU 47 uncontrolled HAP source hours of operation (A#u), the sum of items 2 and 3

Requirement number	Requirement and citation
	<p>above; and</p> <p>5) Monthly STRU 47 controlled HAP source hours of operation (A#c), the hours in the month minus the hours in items 1, 2, and 3 above. [Minn. R. 7007.0800, subps. 4-5]</p>
5.50.29	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 47, such equipment is subject to all of the requirements of STRU 47, as well as those listed at the total facility (TFAC 2), at COMG 21, and within the Permit Appendices. Additionally:</p> <ol style="list-style-type: none"> 1. Except as identified below, all of the existing, new, modified and replaced equipment that vents to STRU 47, as identified in Appendix D including changes identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a RTO (TREA 25) at all times that any of the equipment vents to STRU 47. This includes requirements for minimum control efficiency identified at TREA 25; 2. Any increase in short-term process throughput rates beyond that authorized in the "Short-term Process Throughput" limits at COMG 21 must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at COMG 21; 3. The Permittee may not use the flexibility provisions of this permit to replace, add or modify any dryer (or dryer with multiclones). The appropriate permit amendment must be submitted; 4. Emissions of PM, PM10, PM2.5, SO2, CO, NOx, VOC as mass and HAP shall remain below the lb/hr limits specified at STRU 47; 5. Emissions of HAPs must remain below the ton/year limits specified at COMG 3; 6. The thin stillage tank (EQUI 309) and syrup tanks (EQUI 313, EQUI 314 and EQUI 315) are permitted to allow for both direct emissions to the atmosphere (that vent to STRU 93, STRU 97, STRU 98 and STRU 99 respectively, and are supported by approved PTE calculations) as well as indirect emissions that vent to STRU 24 (and subject to control by TREA 6), STRU 47 (and subject to control by TREA 25), or corn-oil loadout. Indirect emissions that vent to STRU 24, STRU 47, or corn-oil loadout from any replaced, modified, or new thin stillage/syrup tank are subject to the requirements of STRU 24, STRU 47, TREA 6 and TREA 25. Direct emissions from, and applicable requirements for, any replaced, modified, or new thin stillage/syrup tank must meet the requirements of STRU 93, STRU 97, STRU 98 and STRU 99 respectively, and be as described in the applicable records for an insignificant modification, or in a permit application for a minor amendment, unless otherwise prohibited by this

Requirement number	Requirement and citation
	<p>permit;</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10, PM2.5, VOC, NOx and CO; VOC control efficiency; and emission rate of HAPs - Single Inlet and Outlet 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 47. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.300, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.50.30	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>For emission units that vent to STRU 47 (material flow as well as gaseous flow), but also have the ability to vent a portion of emissions to the atmosphere, the calculations described in Minn. R. 7007.1200, subp. 2 and 3 must include a calculation of any emissions increase (lb/hr) from emissions that are vented to the atmosphere and not sent to STRU 47.</p> <p>A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.50.31	<p>Emissions from the syrup tank venting to STRU 100 as described in Appendix D of this permit or as certified in the Annual Report are authorized by this permit to vent to either STRU 24, STRU 47 or corn-oil loadout (indirect) or STRU 100 (direct). As of permit no. 03900028-102, this includes EQUI 316. See STRU 100 for applicable limits for direct emissions. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.50.32	<p>STRU 47 Operating Hours Monitoring and Recordkeeping:</p> <p>The Permittee shall monitor and record STRU 47 operating hours for use in COMG 3 HAP calculations. A "STRU 47 operating hour" is any hour during which any process equipment is operating that vents</p>

Requirement number	Requirement and citation
	<p>through STRU 47.</p> <p>For controlled hours, the Permittee shall monitor and keep records for STRU 47 operating hours when TREA 25 temperature and percent oxygen are within their respective operating range(s) (listed under TREA 25 during the operating hour).</p> <p>For uncontrolled hours, the Permittee shall monitor and keep records for STRU 47 operating hours when TREA 25 temperature and percent oxygen are outside their respective operating range(s) (listed under TREA 25 during the operating hour). [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.50.33	<p>Monthly Monitoring and Recordkeeping:</p> <p>By the 15th day of each month, the Permittee shall calculate and record the following for the previous calendar month:</p> <ol style="list-style-type: none"> 1. Monthly STRU 47 operating hours when TREA 25 was operating within the required range(s) for temperature and percent oxygen. These are considered the controlled hours; and 2. Monthly STRU 47 operating hours when TREA 25 was operating outside the required range for temperature and percent oxygen. These are considered the uncontrolled hours. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.50.34	<p>Performance Testing Recordkeeping: During each performance test, the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
STRU 48	DDGS Storage Silo Fill Vent #2
5.51.1	<p>The Permittee shall limit emissions of Particulate Matter ≤ 0.130 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.51.2	<p>The Permittee shall limit emissions of PM < 10 micron ≤ 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009-0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
5.51.3	The Permittee shall limit emissions of PM < 2.5 micron \leq 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.4	Opacity \leq 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.51.5	The Permittee shall vent emissions from the emission unit that vents to STRU 48 to a fabric filter that meets the requirements of TREA 26 whenever the emission unit that vents to STRU 48 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.51.6	<p>Equipment Flexibility Language: If the Permittee modifies or replaces the equipment that vents emissions to STRU 48, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 48, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, modified and replace equipment that vents to STRU 48, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 26 at all times that any of the equipment is being operated; 2. The maximum capacity of the replaced equipment may not exceed that listed in Appendix D of this permit; 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 48; 4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., DDGS bins) using the flexibility provisions of this permit. 5. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.51.7	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
STRU 49	CHP Dump Stack
5.52.1	<p>Bypass Use - Independent Combustion Turbine Operation including startup/shutdown: Combustion turbine (EQUI 225) operates without the duct burner (EQUI 226). EQUI 225 operates at high load (80% or greater of the maximum rated capacity of 68 MMBtu/hr). [Minn. R. 7007.0800, subp. 11]</p>
5.52.2	<p>The Permittee shall limit Volatile Organic Compounds \leq 7.36 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]</p>
5.52.3	<p>The Permittee shall limit Sulfur Dioxide \leq 0.23 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]</p>
5.52.4	<p>The Permittee shall limit Carbon Monoxide \leq 34.07 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]</p>
5.52.5	<p>The Permittee shall limit Particulate Matter \leq 1.53 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]</p>
5.52.6	<p>The Permittee shall limit PM < 10 micron \leq 1.53 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.52.7	<p>The Permittee shall limit PM < 2.5 micron \leq 1.53 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
5.52.8	<p>The Permittee shall limit Nitrogen Oxides \leq 9.33 pounds per hour 3-hour average. This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.</p>

Requirement number	Requirement and citation
	7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.52.9	The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde \geq 0.0027 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.52.10	The Permittee shall use an outlet (uncontrolled) emission factor for Acrolein \geq 0.00044 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.52.11	The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde \geq 0.048 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.52.12	The Permittee shall use an outlet (uncontrolled) emission factor for Methanol \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.52.13	The Permittee shall use an outlet (uncontrolled) emission factor for Hexane \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor applies during startup, shutdown or Bypass Use. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.52.14	The Permittee shall limit Startup/Shutdown Hours \leq 1 hours per startup/shutdown. Startup shall take no more than 20 minutes. Shutdown shall take no more than 3 minutes. [Minn. R. 7007.0800, subp. 2(D)]
5.52.15	The Permittee shall limit Startup/Shutdown Hours \leq 35.65 hours per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 2(D)]
5.52.16	EQUI 225 Startup, Shutdown, and Malfunction: The terms "startup", "shutdown", and "malfunction" shall have the same meanings as defined in 40 CFR Section 60.2. [Minn. R. 7007.0800, subp. 2(D)]
5.52.17	Startup/Shutdown Hourly Recordkeeping. Each period of bypass use for startup/shutdown shall be recorded. The record shall include the date, start time of startup or shutdown, duration of use, and the facility operating conditions during its use. This shall be based on written records. [Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
5.52.18	Hours: Startup/Shutdown Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of bypass operation for the day. This shall be based on electronic logs. [Minn. R. 7007.0800, subps. 4-5]
5.52.19	Hours: Startup/Shutdown Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total hours of Startup/Shutdown operation for the previous calendar month using the daily records; and 2) The 12-month rolling sum hours of Startup/Shutdown operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
STRU 52	Combined Turbine/Burner Stack
5.53.1	STRU 52 Alternative Operating Scenario 1 (AOS 1 - Normal Operation): Duct Burner (EQUI 226) operating with the combustion turbine (EQUI 225). EQUI 226 is throttled to operate at a maximum rate of 139 MMBtu/hr. EQUI 225 operates at high load (80% or greater of the maximum rated capacity of 68 MMBtu/hr). [Minn. R. 7007.0800, subp.11]
5.53.2	STRU 52 Alternative Operating Scenario 2 (AOS 2 - Combustion Turbine Maintenance): Duct burner (EQUI 226) operates without the combustion turbine (EQUI 225) at a maximum rate of 178 MMBtu/hr (physical capacity). [Minn. R. 7007.0800, subp.11]
5.53.3	STRU 52/STRU 49 Alternative Operating Scenario 3 (AOS 3 - Independent Combustion Turbine Operation): Combustion turbine (EQUI 225) operates without the duct burner (EQUI 226). EQUI 225 operates at high load (80% or greater of the maximum rated capacity of 68 MMBtu/hr). [Minn. R. 7007.0800, subp. 11]
5.53.4	AOS 1: The Permittee shall limit Volatile Organic Compounds <= 1.67 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.5	AOS 2: The Permittee shall limit Volatile Organic Compounds <= 1.60 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.6	AOS 3: The Permittee shall limit Volatile Organic Compounds <= 0.43 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.7	AOS 1: The Permittee shall limit Sulfur Dioxide <= 0.70 pounds per hour 3-hour average. This limit

Permit Issued: [month day, year]
Permit Expires: [month day, year]

Requirement number	Requirement and citation
	does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.8	AOS 2: The Permittee shall limit Sulfur Dioxide \leq 0.60 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.9	AOS 3: The Permittee shall limit Sulfur Dioxide \leq 0.23 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.10	AOS 1: The Permittee shall limit Carbon Monoxide \leq 16.66 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.11	AOS 2: The Permittee shall limit Carbon Monoxide \leq 14.23 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.12	AOS 3: The Permittee shall limit Carbon Monoxide \leq 5.58 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.13	AOS 1: The Permittee shall limit Particulate Matter \leq 4.65 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.14	AOS 2: The Permittee shall limit Particulate Matter \leq 4.00 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.15	AOS 3: The Permittee shall limit Particulate Matter \leq 1.53 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.16	AOS 1: The Permittee shall limit PM < 10 micron \leq 4.65 pounds per hour 3-hour average This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.17	AOS 2: The Permittee shall limit PM < 10 micron \leq 4.00 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]

Requirement number	Requirement and citation
5.53.18	AOS 3: The Permittee shall limit PM < 10 micron <= 1.53 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.19	AOS 1: The Permittee shall limit PM < 2.5 micron <= 4.65 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.20	AOS 2: The Permittee shall limit PM < 2.5 micron <= 4.00 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.21	AOS 3: The Permittee shall limit PM < 2.5 micron <= 1.53 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.22	AOS 1: The Permittee shall limit Nitrogen Oxides <= 20.42 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.23	AOS 2: The Permittee shall limit Nitrogen Oxides <= 34.69 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.24	AOS 3: The Permittee shall limit Nitrogen Oxides <= 9.33 pounds per hour 3-hour average. This limit does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.25	AOS 1: The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde >= 0.022 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.26	AOS 2: The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde >= 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.27	AOS 3: The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde >= 0.0027 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R.

Requirement number	Requirement and citation
	7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.28	AOS 2: The Permittee shall use an outlet (uncontrolled) emission factor for Acrolein \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.29	AOS 1: The Permittee shall use an outlet (uncontrolled) emission factor for Acrolein \geq 0.012 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.30	AOS 3: The Permittee shall use an outlet (uncontrolled) emission factor Acrolein \geq 0.00044 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.31	AOS 1: The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde \geq 0.017 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.32	AOS 2: The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde \geq 0.013 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.33	AOS 3: The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde \geq 0.048 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.34	AOS 1: The Permittee shall use an outlet (uncontrolled) emission factor for Methanol \geq 0.028 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.35	AOS 2: The Permittee shall use an outlet (uncontrolled) emission factor for Methanol \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]

Requirement number	Requirement and citation
5.53.36	AOS 3: The Permittee shall use an outlet (uncontrolled) emission factor for Methanol \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.37	AOS 1: The Permittee shall use an outlet (uncontrolled) emission factor for Hexane \geq 0.24 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.38	AOS 2: The Permittee shall use an outlet (uncontrolled) emission factor for Hexane \geq 0.31 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.39	AOS 3: The Permittee shall use an outlet (uncontrolled) emission factor for Hexane \geq 0.00 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B). This emission factor does not apply during startup, shutdown, or malfunction. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B)]
5.53.40	EQUI 225 Startup, Shutdown, and Malfunction: The terms "startup", "shutdown", and "malfunction" shall have the same meanings as defined in 40 CFR Section 60.2. [Minn. R. 7007.0800, subp. 2(D)]
5.53.41	The Permittee shall limit AOS 2 Operating Hours \leq 8000 hours per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A)]
5.53.42	Hours: AOS 2 Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of AOS 2 operation. This shall be based on written logs. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.43	Hours: AOS 2 Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total hours of AOS 2 operation for the previous calendar month using the daily records; and 2) The 12-month rolling sum hours of AOS 2 operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months. [Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subps. 4-5]
5.53.44	Performance Testing Recordkeeping: During each performance test, the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the

Requirement number	Requirement and citation
	performance test report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 53	Dryer/RTO Bypass Stack (only used in emergency situations)
5.54.1	Emergency Bypass Use: The Permittee may bypass TREA 25 when the DDGS dryers are in operation only when plant or worker safety would be in jeopardy without the use of the bypass. Each period of bypass use, while the DDGS dryers are operated, shall be recorded in the daily operating record. The record shall include the date, start time of use, duration of use, and the facility operating conditions during its use. For each period of bypass use while the DDGS dryers are operated, the Permittee shall conduct a root-cause failure analysis of the event and submit a report of the analysis to the Commissioner within 15 days. The emissions emitted during a bypass event shall be considered uncontrolled and shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
STRU 77	DDGS Loadout Leg Filter
5.55.1	The Permittee shall limit emissions of Particulate Matter ≤ 0.043 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.55.2	The Permittee shall limit emissions of PM < 10 micron ≤ 0.043 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.55.3	The Permittee shall limit emissions of PM < 2.5 micron ≤ 0.043 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.55.4	Opacity ≤ 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.55.5	Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate. The Maximum Achievable Process Rate will be determined by the first compliant performance test

Requirement number	Requirement and citation
	<p>following permit issuance.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.55.6	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish the Maximum Achievable Process Rate by conducting a performance test at the maximum operating rate possible no later than 180 days after permit issuance, and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"><li>1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date.<li>2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate.<li>3. The Maximum Achievable Process Rate will be set to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.<li>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.<li>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the

Requirement number	Requirement and citation
	<p>Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit.</p> <p>This procedure may change the control equipment operating parameter limits.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.55.7	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date. 2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate. 4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation. 5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other

Requirement number	Requirement and citation
	<p>purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.</p> <p>This procedure may change the control equipment operating parameter limits. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.55.8	<p>The Permittee shall vent emissions from all emission units that vent to STRU 77 to a fabric filter that meets the requirements of TREA 36 whenever emission units that vents to STRU 77 operates. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.55.9	<p>Short-term Process Throughput \leq 279 tons per hour 3-hour block average of DDGS loadout, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limit below. The 3-hour block average is calculated by totaling DDGS loadout receipts during the 3-hour period and dividing by 3. The DDGS loadout rate will be based on DDGS loadout receipts (tph).</p> <p>The Permittee must maintain at the facility adequate grain receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits.</p> <p>Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.55.10	<p>Protocol for Resetting Short-Term Process Throughput Limits: The Permittee shall conduct performance testing to measure PM/PM10/PM2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to</p>

Requirement number	Requirement and citation
	<p>be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for PM/PM10/PM2.5 emission rates. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the DDGS loadout and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average DDGS loadout for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none">- If the test results are less than or equal to 80% of tested STRU 77 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs;- If the test results are less than or equal to 80% of tested STRU 77 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable Process Rate;- If the test results are greater than 80% of any STRU 77 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs;- If the test results are greater than 80% of any STRU 77 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate;- The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-

Requirement number	Requirement and citation
	<p>term process limits set for each stack.</p> <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.55.11	<p>Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.55.12	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted Short-Term Process Throughput Limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput. 3. The short-term process throughput limit will be reset through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.

Requirement number	Requirement and citation
	<p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.55.13	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.55.14	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
5.55.15	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 77, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 77, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices. Additionally:</p> <ol style="list-style-type: none"> <li>1. All of the existing, new, modified and replaced equipment that vents to STRU 77, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 36 at all times that any of the equipment is being operated; <li>2. A "Short-term Process Throughput" limit must exist at STRU 77, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 77;

Requirement number	Requirement and citation
	<p>3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term Process Throughput" requirement at STRU 77, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 77 up to the maximum value allowable in the requirement;</p> <p>4. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 77;</p> <p>5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit;</p> <p>6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels;</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 77. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.55.16	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
STRU 78	Fluid Bed Cooler with Baghouse
5.56.1	<p>The Permittee shall vent emissions from all emission units that vent to STRU 78 to a fabric filter that meets the requirements for TREA 37 whenever emission unit that vents to STRU 78 operates. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I</p>

Requirement number	Requirement and citation
	Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.56.2	Volatile Organic Compounds <= 5.02 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A)]
5.56.3	Particulate Matter <= 2.79 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.56.4	PM < 10 micron <= 2.79 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.56.5	PM < 2.5 micron <= 2.79 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.56.6	The Permittee shall use an outlet (uncontrolled) emission factor for Acetaldehyde >= 0.14 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.56.7	The Permittee shall use an outlet (uncontrolled) emission factor for Acrolein >= 0.018 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.56.8	The Permittee shall use an outlet (uncontrolled) emission factor for Methanol >= 0.091 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.56.9	The Permittee shall use an outlet (uncontrolled) emission factor for Formaldehyde >= 0.018 pounds per hour 3-hour average unless a new emission factor is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The emission factor is to be used in the calculations in COMG 3 for uncontrolled operation. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.56.10	Opacity <= 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]

Requirement number	Requirement and citation
5.56.11	<p>Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.56.12	<p>Protocol(s) for Resetting HAP Emission Factors are located at COMG 3. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.56.13	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 78, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 78, as well as those listed at the total facility (TFAC 2), at COMG 21, and within Permit Appendices. Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, new, modified and replaced equipment that vents to STRU 78, as identified in Appendix D including changes identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 37 at all times that any of the equipment is being operated; 2. A "Short-term Process Throughput" limit must exist at COMG 21, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 78; 3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term Process Throughput" requirement at COMG 21, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at COMG 21 up to the maximum value allowable in the requirement; 4. Emissions of PM, PM10, PM2.5 and VOC must remain below the lb/hr limits specified at STRU 78; 5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit;

Requirement number	Requirement and citation
	<p>6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels;</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report; and</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10, PM2.5 and VOC; and emission rate of HAPs - Single 60 days after an addition, modification or replacement of equipment that vents emissions to STRU 78. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.56.14	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.56.15	<p>STRU 78 Operating Hours Monitoring and Recordkeeping:</p> <p>The Permittee shall monitor and record STRU 78 operating hours for use in COMG 3 HAP calculations. A "STRU 78 operating hour" is any hour during which any process equipment is operating that vents through STRU 78.</p> <p>For uncontrolled hours, the Permittee shall monitor and keep daily records for STRU 78 operating hours. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.56.16	<p>Monthly Recordkeeping of Hours of Operation for COMG 3 Calculations: By the 15th day of each month, the Permittee shall calculate and record, based on daily records from the previous month, the following for the previous calendar month:</p> <ol style="list-style-type: none"> 1) Monthly STRU 78 hours of equipment downtime; and 2) Monthly STRU 78 uncontrolled HAP source hours of operation (A#u), the STRU 78 operating hours

Requirement number	Requirement and citation
	in the month minus the hours in item 1 above. [Minn. R. 7007.0800, subps. 4-5]
STRU 84	DDGS Storage Silo Fill Vent #3
5.57.1	The Permittee shall limit emissions of Particulate Matter \leq 0.130 pounds per hour 3-hour average based on an average annual throughput of 66 tons/hr. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.57.2	The Permittee shall limit emissions of PM < 10 micron \leq 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.3	The Permittee shall limit emissions of PM < 2.5 micron \leq 0.130 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.4	Opacity \leq 10 percent opacity discharged from control equipment. [Minn. R. 7011.1005, subp. 3(D)]
5.57.5	The Permittee shall vent emissions from the emission unit that vents to STRU 84 to a fabric filter that meets the requirements of TREA 38, whenever the emission unit that vents to STRU 84 operates. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.57.6	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces the equipment that vents emissions to STRU 84, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 84, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. All of the existing, modified and replace equipment that vents to STRU 84, as identified in the Equipment Inventory including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 38 at all times that any of the equipment is being operated; 2. The maximum capacity of the replaced equipment may not exceed that listed in Appendix D of this permit; 3. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 84;

Requirement number	Requirement and citation
	<p>4. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., DDGS fill leg or DDGS bins) using the flexibility provisions of this permit;</p> <p>5. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.57.7	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
STRU 85	DDGS Conveying
5.58.1	<p>The Permittee shall vent emissions from all emission units that vent to STRU 85 to a fabric filter that meets the requirements for TREA 39, whenever emission unit that vents to STRU 85 operates. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.58.2	<p>The Permittee shall limit emissions of Particulate Matter ≤ 0.043 pounds per hour 3-hour average. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.58.3	<p>The Permittee shall limit emissions of PM < 10 micron ≤ 0.043 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.58.4	<p>The Permittee shall limit emissions of PM < 2.5 micron ≤ 0.043 pounds per hour 3-hour average. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.58.5	<p>Opacity ≤ 10 percent opacity discharged from control equipment. This limit applies individually to each unit which vents to STRU 85. [Minn. R. 7011.1005, subp. 3(D)]</p>

Requirement number	Requirement and citation
5.58.6	<p>Maximum Achievable Process Rate: When the Permittee is unable to describe, provide, or define the worst case operating rate for a process, the Maximum Achievable Process Rate (as described at Minn. R. 7017.2025, subp. 2(B)) will be set by the permit as the process rate measured during the initial compliant performance test, the compliant performance test conducted after making a process change, or the compliant performance test conducted after issuance of this permit, as applicable. Each Short-Term Process Throughput Limit shall never exceed the current Maximum Achievable Process Rate.</p> <p>The Maximum Achievable Process Rate will be determined by the first compliant performance test following permit issuance.</p> <p>If the Permittee desires to reset the Maximum Achievable Process Rate, the Permittee shall follow the Procedure to Increase Maximum Achievable Process Rate requirement. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21((b))(1)(i) & Minn. R. 7007.3000]</p>
5.58.7	<p>Procedure to Establish Maximum Achievable Process Rate:</p> <p>The Permittee shall establish the Maximum Achievable Process Rate by conducting a performance test at the maximum operating rate possible no later than 180 days after permit issuance, and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test to establish the Maximum Achievable Process Rate. If the Permittee will conduct the performance test to establish the Maximum Achievable Process Rate at a rate greater than an applicable Short-Term Process Throughput Limit, the notification shall identify the date on which they wish to be authorized to exceed the Short-Term Process Throughput Limit, if prior to the test date. 2. The Permittee may exceed the existing Short-Term Process Throughput Limit during the performance test to establish the Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Short-Term Process Throughput Limit is only valid during the performance test for establishing the Maximum Achievable Process Rate. 3. The Maximum Achievable Process Rate will be set to the 3-hour block average process rate

Requirement number	Requirement and citation
	<p>achieved during the compliant performance test conducted for the purpose of establishing the Maximum Achievable Process Rate.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Short-Term Process Throughput Limit must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate measured during the performance test for determining the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification, if the emission rate measured during the performance test to determine the Maximum Achievable Process Rate exceeds the emission rate measured during the performance test that set the applicable Short-Term Process Throughput Limit.</p> <p>This procedure may change the control equipment operating parameter limits.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]</p>
5.58.8	<p>Procedure to Increase Maximum Achievable Process Rate:</p> <p>The Permittee may increase the Maximum Achievable Process Rate by conducting a performance test at an operating rate that exceeds the permitted Maximum Achievable Process Rate and meeting requirements 1 through 5 below.</p> <p>1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the Maximum Achievable Process Rate, if prior to the test date.</p> <p>2. The Permittee may exceed the existing Maximum Achievable Process Rate upon MPCA receipt of the notification of a performance test at a higher process throughput. This authorization to exceed the Maximum Achievable Process Rate is only valid during the performance test for increasing the Maximum Achievable Process Rate.</p>

Requirement number	Requirement and citation
	<p>3. The Maximum Achievable Process Rate will be reset to the 3-hour block average process rate achieved during the compliant performance test conducted for the purpose of increasing the Maximum Achievable Process Rate.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions while equipment is operated above the existing Maximum Achievable Process Rate must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the performance test to increase the Maximum Achievable Process Rate, retroactive to the date identified in the Performance Test Notification.</p> <p>This procedure may change the control equipment operating parameter limits. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2025, subp. 2(B), Minn. R. 7017.2025, subp. 3(C), Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1&2]</p>
5.58.9	<p>Short-term Process Throughput \leq 140 tons per hour 3-hour block average of DDGS loadout, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 as detailed in the Protocol for Resetting Short-Term Process Throughput Limit below. The 3-hour block average is calculated by totaling DDGS loadout receipts during the 3-hour period and dividing by 3. The DDGS loadout rate will be based on DDGS loadout receipts (tph).</p> <p>The Permittee must maintain at the facility adequate grain receiving receipts, DDGS loadout receipts, and/or flow monitor records to demonstrate continuous compliance with these operating condition limitations for the applicable averaging period. The facility must use a continuous hard-copy recorder or a data acquisition system to take and record readings to comply with the process throughput limits as a 3-hour block average. Any data acquisition system must be equipped with a computer historian, and be capable of providing the necessary records for calculating the required 3-hour block averages. The Permittee is responsible for assuring compliance with the short-term throughput limits on a 3-hour block average through daily calculations or by maintaining maximum throughputs below the short-term throughput limits.</p> <p>Missed readings and recorded values outside the indicator ranges specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported on the applicable DRF Form. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R.</p>

Requirement number	Requirement and citation
	7017.2025, subp. 3, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.58.10	Performance Testing Recordkeeping: During each performance test the Permittee must record and maintain, at a minimum, the process and control parameters as detailed in Appendix E. These records must be included with the performance test results and submitted to the Commissioner with the performance test report. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.58.11	<p>Protocol for Resetting Short-Term Process Throughput Limits:</p> <p>The Permittee shall conduct performance testing to measure PM/PM10/PM2.5 emission rates as required elsewhere in this permit. If an established Short-Term Process Throughput Limit (Limit) is to be reset, the reset shall be based on the average Short-Term Process Throughput values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for PM/PM10/PM2.5 emission rates. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>During each performance test, the Permittee must continuously monitor the DDGS loadout and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. This may include grain receiving receipts or DDGS loadout receipts for the 3-hour period of the performance test. The Permittee shall calculate the average DDGS loadout for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The Short-Term Process Throughput Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - If the test results are less than or equal to 80% of tested STRU 85 emission limits and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit may be reset to 110% of the average throughput rate measured during the required number of test runs; - If the test results are less than or equal to 80% of tested STRU 85 emission limits and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will remain at or be reset to 100% of the Maximum Achievable

Requirement number	Requirement and citation
	<p>Process Rate;</p> <ul style="list-style-type: none"> - If the test results are greater than 80% of any STRU 85 emission limit and the process rate during the test was less than 90% of the Maximum Achievable Process Rate, the short-term process throughput limit will be reset to the average throughput rate measured during the required number of test runs; - If the test results are greater than 80% of any STRU 85 emission limit and the process rate during the test was greater than or equal to 90% of the Maximum Achievable Process Rate, the short-term process throughput limit remain at or be reset to 100% of the Maximum Achievable Process Rate; - The permit contains multiple short-term throughput limits for the same feed rates which may be reset independently as a result of performance testing. The Permittee must comply with all short-term process limits set for each stack. <p>The new Short-Term Process Throughput Limit(s) shall be effective upon receipt of the Notice of Compliance/Notice of Test Verification letter that approves the test results and shall be incorporated into the permit when the permit is next amended. The short-term process throughput limits must remain in the permit to define the maximum allowable capacity of the process for the applicable averaging period, as well as to reflect process throughput rates established during performance testing. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.58.12	<p>Procedure to Increase Short-Term Process Throughput Limit:</p> <p>The Permittee may increase the process throughput limit and reset control equipment operating parameters by conducting a performance test at an operating rate that exceeds the permitted process throughput limit and meeting requirements 1 through 5 below.</p> <ol style="list-style-type: none"> 1. Performance Test Notification (written): due 30 to 90 days before performance test at an increased process throughput rate. In the notification, the Permittee shall identify the date on which they wish to be authorized to exceed the short-term throughput limit, if prior to the test date. 2. The Permittee may exceed the existing short-term process throughput limit upon MPCA receipt of the notification of performance test at a higher process throughput.

Requirement number	Requirement and citation
	<p>3. The short-term process throughput limit will be re-set through receipt of a Notice of Compliance letter using the considerations described in the Protocol for Resetting Short-Term Process Throughput Limits above.</p> <p>4. The Permittee must conduct the performance test on the date specified in the Performance Test Notification. If the test is not conducted within 90 days of test notification, the emissions exceeding the existing short-term limit during the higher process throughput time period must be reported as a deviation.</p> <p>5. The Permittee must calculate actual emissions (i.e. for deviations, emission inventory or any other purpose) using the emission rate from the increased process throughput performance test retroactive to the date identified in the Performance Test Notification.</p> <p>The Permittee shall follow TFAC requirements for other required performance testing notifications and submittals. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
5.58.13	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Short-Term Process Throughput Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.58.14	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
5.58.15	<p>POLLUTION CONTROL REQUIREMENTS Refer to TREA 39 for additional pollution control requirements. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.58.16	<p>Equipment Flexibility Language: If the Permittee adds, modifies or replaces any equipment that vents emissions to STRU 85, such equipment, with exceptions noted below, is subject to all of the requirements of STRU 85, as well as those listed at the total facility (TFAC 2) and within the Permit Appendices. Additionally:</p> <p>1. All of the existing, new, modified and replaced equipment that vents to STRU 85, and as identified in Appendix D including changes identified in the most current Annual Report, must be controlled by a fabric filter that meets the requirements of TREA 39 at all times that any of the equipment is being</p>

Requirement number	Requirement and citation
	<p>operated;</p> <p>2. A "Short-term Process Throughput" limit must exist at STRU 85, for any material that is received, handled, processed or stored by any equipment that is modified or replaced, or whose emissions are rerouted, using the equipment flexibility language at STRU 85;</p> <p>3. Any increase in short-term process throughput rates beyond that authorized in the "Short-Term Process Throughput" requirement at STRU 85, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 85 up to the maximum value allowable in the requirement;</p> <p>4. Emissions of PM, PM10 and PM2.5 must remain below the lb/hr limits specified at STRU 85;</p> <p>5. The Permittee may not replace, add or modify any emission unit that is not designed to achieve 100% capture of emissions to associated controls (e.g., grain-receiving pit or DDGS loadout operations) using the flexibility provisions of this permit;</p> <p>6. The total permanent grain storage capacity of the facility must not exceed 2.5 million bushels; and</p> <p>7. The Permittee must document the changes to any EQUI, STRU or TREA in the Equipment Inventory seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report.</p> <p>8. The Permittee must conduct performance testing to verify emission rate of PM10 and PM2.5 days after an addition, modification or replacement of equipment that vents emissions to STRU 85. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.1015, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.58.17	<p>Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this</p>

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

Requirement number	Requirement and citation
	permit. [Minn. R. 7007.0800, subp. 2(A)]
STRU 93	Thin Stillage Tank (T-501)
5.59.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.59.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
STRU 96	Syrup Tank (T-620)
5.60.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.60.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
STRU 97	Syrup Tank (T-5305)
5.61.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.61.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
STRU 98	Oil Free Syrup Receiver Tank (T-5201)
5.62.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.62.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
STRU 99	Oil Centrifuge Feed Tank (T-5301)
5.63.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.63.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
STRU 100	Heavy Phase Tank (T-5310)
5.64.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.64.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R.

Requirement number	Requirement and citation
	7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
TREA 3	Flaring
5.65.1	The Permittee shall vent emissions from EQUI 73 to TREA 3 whenever EQUI 73 operates, and operate and maintain TREA 3 at all times that any emissions are vented to TREA 3. The Permittee shall document periods of non-operation of the control equipment. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.2	The Permittee shall operate and maintain the flare such that it achieves a capture efficiency for Volatile Organic Compounds \geq 98.7 percent capture efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.65.3	The Permittee shall operate and maintain the flare such that it achieves a collection efficiency for Volatile Organic Compounds \geq 98 percent collection efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.65.4	The Permittee shall operate and maintain the flare such that it achieves an overall control efficiency for Volatile Organic Compounds \leq 95.0 percent collection efficiency. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.65.5	The Permittee shall operate and maintain the flare such that it achieves a control efficiency for 2,2,4-trimethylpentane \geq 96.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.6	The Permittee shall operate and maintain the flare such that it achieves a control efficiency for Polycyclic organic matter \geq 96.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.7	The Permittee shall operate and maintain the flare such that it achieves a control efficiency for Toluene \geq 96.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.8	The Permittee shall operate and maintain the flare such that it achieves a control efficiency for Xylene \geq 96.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.9	The Permittee shall operate and maintain the flare such that it achieves a control efficiency for Hexane \geq 96.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.10	Opacity \leq 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, Title I Condition: Avoid major source under 40 CFR

Requirement number	Requirement and citation
	52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.11	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.65.12	Allowable Fuel: Propane only for supplemental fuel. [Minn. R. 7007.0800, subp. 2(A)]
5.65.13	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.65.14	The flare shall be operated with a flame present at all times that emissions are vented to it. The facility must employ an interlock system that precludes operation of the loadout system without the presence of a flame. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.65.15	Monitoring Equipment: The Permittee shall install and maintain a thermocouple or other equivalent monitoring device for monitoring and recording the presence of a flame as required by this permit, at least once every 15 minutes. The monitoring equipment must be installed, in use, and properly maintained when the monitored flare is in operation. This includes, but is not limited to, maintaining necessary parts for routine repairs. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4]
5.65.16	Flares shall be steam-assisted, air-assisted, or nonassisted. [Minn. R. 7007.0800, subp. 2(A)]
5.65.17	Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax as determined by the method in 40 CFR Section 60.18(f)(6). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.65.18	The flare shall be used only when the net heating value of the gas being combusted is greater than or equal to 300 Btu/scf if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR Section 60.18(f)(3). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.65.19	Daily Inspections: The Permittee shall physically verify the operation of the flame recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a record of the daily verifications. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.65.20	The flare shall only be used when the net heating value of the gas being combusted is greater than or equal to 300 Btu/scf if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR Section 60.18(f)(3).

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subps. , 2(A) & 14, Minn. R. 7017.0200]
5.65.21	The Permittee shall calibrate or replace the thermocouple or other equivalent monitoring device at least once every 12 months, or calibrate at the frequency stated in the manufacturer's specifications, and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.65.22	Daily Visible Emissions Check: The Permittee shall conduct a visual observation of the flare at least once each operating day, when emissions are vented to the flare, to verify that there are no visible emissions. The Permittee shall maintain a record of the daily readings. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.2020, subp. 1]
5.65.23	Annual Inspection: At least once per calendar year, the Permittee shall conduct an inspection of the operating systems of the control device. The Permittee shall maintain a record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.65.24	The Permittee shall operate and maintain the flare in conformance with its design and manufacturer specifications, and in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.65.25	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - visible emissions are observed; - the presence of a flame is not detected; or - the flare or any of its components are found during the inspections to need repair. <p>Corrective actions shall return the flame presence, 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 flare. The Permittee shall keep a record of the type and date of any corrective action taken for each flare. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]</p>
5.65.26	<p>Recordkeeping: The Permittee shall record the date, times and duration of all periods during which:</p> <ol style="list-style-type: none"> 1. the flare flame or all the pilot flames are absent; 2. visible emissions were documented; 3. whether or not emissions were being vented to the flare during periods of flame absence; and 4. whether or not emissions were being vented to the flare during periods of visible emissions.

Requirement number	Requirement and citation
	If periods of flame absence or visible emissions are recorded when emissions are being vented to the flare, the emissions during that time shall be considered uncontrolled until flame presence and/or no visible emission conditions are restored. The period of time for which there is no flame, or there are visible emissions are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.65.27	Recordkeeping of Flame Presence and Visible Emissions (VE) Observations: The Permittee shall maintain records of flame presence, VE observations, and other supporting information for at least five years following the date of such observations. The Permittee may maintain records on alternative media, such as computer files, provided that the use allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
TREA 6	Thermal Oxidizer
5.66.1	The Permittee shall vent emissions from any emission unit that vents to STRU 24 to TREA 6 whenever any emission unit that vents to STRU 24 operates, and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee shall document periods of non-operation of the control equipment TREA 6 whenever emissions are vented to it. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.2	The Permittee shall operate and maintain a thermal oxidizer that meets the requirements of TREA 6 at all times when emissions are vented to it. The Permittee shall document periods of non-operation of the control equipment. [CAAA of 1990, Minn. R. 7007.0100, subps. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.66.3	The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 90.0 percent control efficiency or less than or equal to 100 parts per million. This limit is applicable EQUI 47, 54 and TREA 6. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.66.4	The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 95.0 percent control efficiency for TREA 6 or less

Requirement number	Requirement and citation
	<p>than or equal to 10 parts per million. This limit is applicable to EQUI 47 and EQUI 54. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.66.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 96.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.66.6	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acetaldehyde \geq 98 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.7	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acrolein \geq 88 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.8	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Formaldehyde \geq 98 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.9	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Methanol \geq 98 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title</p>

Requirement number	Requirement and citation
	I Condition: Avoid major source under 40 CFR 63.2]
5.66.10	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Hexane \geq 0.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.11	<p>Temperature \geq 1477 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet (Minimum Temperature Limit) as determined during the March 5-6, 2019 performance test, unless a new minimum is required to be set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded 3-hour rolling average temperature is below the Minimum Temperature Limit, the emissions during that time shall be considered uncontrolled until the average temperature is above the Minimum Temperature Limit. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.12	<p>Protocol for Resetting the Minimum Temperature Limit: The Permittee shall conduct performance testing to measure the VOC as mass, PM, PM10, PM2.5, NOx, CO emission rates, and VOC control efficiency as required elsewhere in this permit. If the Minimum Temperature Limit is to be reset, the reset shall be based on the average of all temperature values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the temperature at the combustion chamber outlet, and calculate the average temperature as the average of all temperature measurements during all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>The Minimum Temperature Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - if the 3-hour average temperature recorded during the test is less than 25 deg Fahrenheit over the established Minimum Temperature Limit, the limit remains unchanged; or -If the 3-hour average temperature recorded during the test is 25 deg Fahrenheit or greater than the established Minimum Temperature Limit, it shall be reset as the average temperature of the performance test. Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test; or - if the 3-hour average temperature recorded during the test is less than the established Minimum Temperature Limit, it shall be reset as the average temperature of the performance test. Ongoing

Requirement number	Requirement and citation
	<p>compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test.</p> <p>Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test. During each performance test, the Permittee must continuously monitor the centrifuge feed rate and syrup feed rate, and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. The Permittee shall calculate the average centrifuge feed rate and syrup feed rate for each individual compliant test run.</p> <p>The new Minimum Temperature Limit determined using this Protocol shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.66.13	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Minimum Temperature Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.66.14	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.66.15	The Permittee shall operate and maintain TREA 6 at all times when emissions are vented to it. The Permittee shall document periods of non-operation of the control equipment. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.16	TO Breakdown: In the event of a breakdown, the Permittee shall stop feed into any dryer as soon as the breakdown is discovered and must cease operation of any dryer as soon as possible. The Permittee shall submit a breakdown notification if required by Minn. R. 7019.1000, subp. 2. Breakdowns of any length are considered a deviation as defined by Minn. R. 7007.0100, subp. 8. The Permittee shall identify the length of time that any dryer continued operation after breakdown of

Requirement number	Requirement and citation
	associated control equipment. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.17	Permitted Fuel: Natural Gas only . [Minn. R. 7005.0100, subp. 35a]
5.66.18	Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/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 thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
5.66.19	The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.66.20	Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment external system components, including but not limited to the heat exchanger and electrical systems . The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.66.21	Annual Inspections: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.66.22	Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4-5]
5.66.23	The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.24	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording

Requirement number	Requirement and citation
	device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [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, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.25	Annual Calibration: The Permittee shall calibrate the temperature monitor, or replace with a calibrated monitor, at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.66.26	Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius (+/- 4.5 degrees Fahrenheit). The recording device shall also calculate the three-hour rolling average combustion chamber temperature. 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, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.66.27	Accumulation of Deviations Report: If there is an accumulation of Temperature deviations greater than 5% of the thermal oxidizer operating time during a six-month reporting period, the Permittee must develop and implement a quality improvement plan to address the deviations within 30 days following the six-month reporting period. Temperature deviations include missed readings and any readings outside of the indicator range. If there is an accumulation of Temperature deviations greater than 5% of the control equipment operating time during a subsequent six-month reporting period, the Permittee must revise the quality improvement plan, conduct a root-cause analysis of the failure of the quality improvement plan to address the deviations, and submit the quality improvement plan and the root-cause analysis report to the Commissioner within 30 days following the end of six-month reporting period. Implementation of a quality improvement plan does not excuse the Permittee from compliance with any applicable requirement. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
TREA 15	Ethanol Loading Rack Flare #2
5.67.1	The Permittee shall vent emissions from EQUI 228, EQUI 229, EQUI 281 and EQUI 282 to TREA 15 whenever EQUI 228, EQUI 229, EQUI 281 and EQUI 282 operates, and operate and maintain TREA 15 at all times that any emissions are vented to TREA 15. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i)]

Requirement number	Requirement and citation
	and Minn. R. 7007.3000]
5.67.2	The Permittee shall operate and maintain the flare such that it achieves an overall capture efficiency for Volatile Organic Compounds ≥ 98.7 percent capture efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.67.3	The Permittee shall operate and maintain the flare such that it achieves an overall collection efficiency for Volatile Organic Compounds ≥ 98 percent collection efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.67.4	Opacity ≤ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.67.5	Particulate Matter ≤ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.67.6	Allowable Fuel: Propane only for supplemental fuel. [Minn. R. 7007.0800, subp. 2(A)]
5.67.7	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.67.8	The flare shall be operated with a flame present at all times that emissions are vented to it. The facility must employ an interlock system that precludes operation of the loadout system without the presence of a flame. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.67.9	Monitoring Equipment: The Permittee shall install and maintain a thermocouple or other equivalent monitoring device for monitoring and recording the presence of a flame as required by this permit, at least once every 15 minutes. The monitoring equipment must be installed, in use, and properly maintained when the monitored flare is in operation. This includes, but is not limited to, maintaining necessary parts for routine repairs. [Minn. R. 7007.0800, subps. 4 & 14]
5.67.10	Daily Inspections: The Permittee shall physically verify the operation of the flame recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a record of the daily verifications. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.67.11	Flares shall be steam-assisted, air-assisted, or nonassisted. [Minn. R. 7007.0800, subp. 2(A)]
5.67.12	The flare shall only be used when the net heating value of the gas being combusted is greater than or equal to 300 Btu/scf if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR Section 60.18(f)(3).

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.67.13	<p>Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity and velocity V_{max}, as determined by the methods in 40 CFR Section 60.18(f)(3), (f)(4) and (f)(5) less than 60 ft/sec, except as provided below:</p> <ol style="list-style-type: none"> 1. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, equal to or greater than 60 ft/sec but less than 400 ft/sec are allowed if the net heating value of the gas being combusted is greater than 1,000 Btu/scf; and 2. Steam-assisted and nonassisted flares designed for and operated with an exit velocity less than the velocity, V_{max}, and less than 400 ft/sec are allowed. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.67.14	Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} as determined by the method in 40 CFR Section 60.18(f)(6). [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.67.15	The Permittee shall operate and maintain the flare in conformance with its design and 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, Minn. R. 7007.0800, subp. 2(A)]
5.67.16	Daily Visible Emissions Check: The Permittee shall conduct a visual observation of the flare at least once each operating day, when emissions are vented to the flare, to verify that there are no visible emissions. The Permittee shall maintain a record of the daily readings. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.67.17	Annual Inspection: At least once per calendar year, the Permittee shall conduct an inspection of the operating systems of the control device. The Permittee shall maintain a record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.67.18	The Permittee shall calibrate or replace the thermocouple or other equivalent monitoring device at least once every 12 months, or calibrate at the frequency stated in the manufacturer's specifications, and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.67.19	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - visible emissions are observed;

Requirement number	Requirement and citation
	<p>- the presence of a flame is not detected; or - the flare or any of its components are found during the inspections to need repair.</p> <p>Corrective actions shall return the flame presence, 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 flare. The Permittee shall keep a record of the type and date of any corrective action taken for each flare. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]</p>
5.67.20	<p>Recordkeeping of Flame Presence and Visible Emissions (VE) Observations: The Permittee shall maintain records of flame presence, VE observations, and other supporting information for at least five years following the date of such observations. The Permittee may maintain records on alternative media, such as computer files, provided that the use allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [Minn. R. 7007.0800, subp. 2(A), 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]</p>
5.67.21	<p>Recordkeeping: The Permittee shall record the date, times and duration of all periods during which:</p> <ol style="list-style-type: none"> 1. the flare flame or all the pilot flames are absent; 2. visible emissions were documented; 3. whether or not emissions were being vented to the flare during periods of flame absence; and 4. whether or not emissions were being vented to the flare during periods of visible emissions. <p>If periods of flame absence or visible emissions are recorded when emissions are being vented to the flare, the emissions during that time shall be considered uncontrolled until flame presence and/or no visible emission conditions are restored. The period of time for which there is no flame, or there are visible emissions are considered deviations as defined by Minn. R. 7007.0100, subp. 8a and must be reported. [Minn. R. 7007.0800, subp. 2(A), 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]</p>
TREA 16	Fermentation System Scrubber
5.68.1	<p>The Permittee shall vent emissions from all emission units venting to STRU 37 to a condenser meeting the permit requirements of TREA 42 in series with a scrubber meeting the permit requirements for TREA 16 whenever emission units venting to STRU 37 operate, and operate and maintain a condenser that meets the permit requirements of TREA 42 in series with a scrubber meeting the requirements of TREA 16 at all times that any emissions are vented to the scrubber meeting the requirements of TREA 16. The Permittee shall document periods of non-operation of the control equipment TREA 16 and</p>

Requirement number	Requirement and citation
	condenser TREA 42 whenever equipment venting to STRU 37 is operating. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.2	The Permittee shall operate and maintain a scrubber that meets the requirements of TREA 16 at all times when emissions from EQUI 31, EQUI 32 and EQUI 33 are vented to it. The Permittee shall document periods of non-operation of the control equipment. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.3	Alternative Operating Scenario 1 (AOS 1): Fermentation System Scrubber (TREA 16) operates at normal (not reduced) water flow rate and normal (not reduced) scrubber additive liquid flow rate as defined below. [Minn. R. 7007.0800, subp. 11]
5.68.4	Alternative Operating Scenario 2 (AOS 2): Fermentation System Scrubber (TREA 16) operates at a reduced water flow rate and reduced scrubber additive liquid flow rate as defined below. [Minn. R. 7007.0800, subp. 11]
5.68.5	AOS 1: The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds \geq 99.5 percent control efficiency or less than or equal to 20 parts per million if the inlet concentration is less than 200 parts per million. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.6	AOS 2: The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds \geq 99.7 percent control efficiency or less than or equal to 20 parts per million if the inlet concentration is less than 200 parts per million. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.68.7	AOS 1 and AOS 2: The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Volatile Organic Compounds \geq 95 percent control efficiency or less than or equal to 20 parts per million if the inlet concentration is less than 200 parts per million. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 11, Minn. R. 7007.0800, subp. 2(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52]
5.68.8	AOS 1: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acetaldehyde \geq 98.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3 and Appendix D. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control

Requirement number	Requirement and citation
5-68.9	<p>equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p> <p>AOS 2: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acetaldehyde \geq 50.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5-68.10	<p>AOS 1: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acrolein \geq 95.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3 and Appendix D. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5-68.11	<p>AOS 2: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acrolein \geq 95.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5-68.12	<p>If the Permittee replaces TREA 16, the replacement control must meet or exceed the control efficiency requirements of TREA 16 as well as comply with all other requirements of TREA 16. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5-68.13	<p>AOS 1: The Permittee shall operate and maintain the control equipment such that it achieves an</p>

Requirement number	Requirement and citation
	overall control efficiency for Formaldehyde \geq 95.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3 and Appendix D. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.14	AOS 1: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Methanol \geq 96.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3 and Appendix D. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.15	AOS 2: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Formaldehyde \geq 95.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.16	AOS 2: The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Methanol \geq 96.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.17	AOS 2: Hours \leq 5,000 hours per year 12-month rolling sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Minn. R. 7007.0800, subp. 11, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.18	If the Permittee replaces or modifies a scrubber that meets the requirements of TREA 16, such control equipment must meet or exceed the control efficiency requirements of TREA 16 as well as comply

Requirement number	Requirement and citation
	<p>with all other requirements of TREA 16, TFAC 2, COMG 3, EQUI 31, EQUI 32, EQUI 33, STRU 37 and Permit Appendix D. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>Additionally:</p> <ol style="list-style-type: none">1. Provide justification that the VOC as mass emissions will remain below the lb/hr limits specified at STRU 37. This may include manufacturer guarantees, design calculations, or similar that establish that the scrubber is capable of controlling the emissions vented to it. The documentation must be submitted with the Annual Report;2. Submit notification of initial startup of the scrubber and intent to conduct a performance test of the modified or replaced scrubber;3. Any increase to the short-term process throughput limit beyond that authorized in the "Short-term Process Throughput" requirement at STRU 37, must be reestablished using the "Procedure to Increase Short-Term Process Throughput Limit" requirement at STRU 37;4. Within 90 days of initial startup of a modified or replaced scrubber, the Permittee must conduct a performance test for VOC as mass (lb/hr), VOC percent overall control efficiency, HAP percent overall control efficiency and verification of HAP emission factors (lb/hr), following the Performance Testing requirements at TFAC 2 and the "Procedure to Increase Short-Term Process Throughput Limit" requirements at STRU 37. The performance test must confirm the operating parameters, short-term throughput limits, and emission limits identified at TREA 16 and STRU 37;5. Emissions of VOC as mass must remain below the lb/hr limits specified at STRU 37;6. Emissions of HAPs must remain below the lb/hr limits specified at STRU 37;7. The performance test may reset the performance test due dates and frequency at STRU 37 as identified within a Notice of Compliance letter; and8. The Permittee must document the changes to any TREA in the Equipment Inventory, which is based on the Flexible Permitting Table in Appendix D of the permit, seven working days prior to the commencement/start of any change. The documentation must be submitted with the Annual Report. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and

Requirement number	Requirement and citation
5.68.19	<p>Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p> <p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.68.20	<p>AOS 1: Water flow rate \geq 53.5 gallons per minute (Flow Rate Limit) as determined during the November 6, 2019 performance test, whenever emissions are venting to TREA 16, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the water flow rate at least once every 24 hours. If the recorded water flow rate is below the minimum flow rate limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the minimum flow rate limit. The period of time for which the flow rate is below the minimum limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.21	<p>AOS 2 Water flow rate \geq 45.0 gallons per minute (Flow Rate Limit) as determined during the November 6, 2019 performance test, whenever emissions are venting to TREA 16, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the water flow rate at least once every 24 hours. If the recorded water flow rate is below the minimum flow rate limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the minimum flow rate limit. The period of time for which the flow rate is below the minimum limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.22	<p>AOS 1: Additive Liquid Flow Rate \geq 110.6 milliliters per minute (Additive Rate Limit) as determined during the November 6, 2019 performance test, whenever emissions are venting to TREA 16, unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p>

Requirement number	Requirement and citation
	<p>The Permittee shall record the additive liquid flow rate at least once every 24 hours. If the recorded additive liquid 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. 11, Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.23	<p>AOS 2: Additive Liquid Flow Rate \geq 0.0 milliliters per minute (Additive Rate Limit) as determined during the November 6, 2019 performance test, whenever emissions are venting to TREA 16, unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the additive liquid flow rate at least once every 24 hours. If the recorded additive liquid 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. 11, Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.24	<p>AOS 1 and AOS 2: Pressure Drop \geq 2.0 and \leq 25.0 inches of water (Pressure Drop Range Limit) as determined during the September 13, 2018 performance test, whenever emissions are venting to TREA 16, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the pressure drop at least once every 24 hours. 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. 11, Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.25	<p>Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing at TREA 16 with TREA 42 operating to measure the VOC as mass emission rate, outlet HAP emission factors, HAP control efficiency and VOC control efficiency as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the</p>

Requirement number	Requirement and citation
	<p>pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants at AOS 1 and AOS 2.</p> <p>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.</p> <p>The established Pressure Drop Range Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - if the 3-hour average pressure drop recorded during the test is within the established range, 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 new minimum value shall be reset to 50% of the average pressure drop from the test. The maximum value shall be decreased by the same amount to maintain the pressure drop range; 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. <p>The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).</p> <p>Ongoing compliance with the Pressure Drop 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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.26	<p>Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing at TREA 16 with TREA 42 operating to measure the VOC as mass emission rate, outlet HAP emission factors, HAP control efficiency and VOC control efficiency 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 for all pollutants at AOS 1 or AOS 2.</p> <p>During the performance test, the Permittee must continuously monitor the water flow rate. The Permittee shall calculate the average water flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Flow Rate Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - if the lowest 1-hour average water flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Flow Rate Limit remains unchanged; or

Requirement number	Requirement and citation
	<p>- if the lowest 1-hour average water flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run; or</p> <p>- if the lowest 1-hour average water flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run.</p> <p>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. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.68.27	<p>Protocol for Resetting the Additive Rate Limit: The Permittee shall conduct performance testing at TREA 16 with TREA 42 operating to measure the VOC as mass emission rate, outlet HAP emission factors, HAP control efficiency and VOC control efficiency as required elsewhere in this permit. If the established Additive Liquid Flow Rate Limit is to be reset, the reset shall be based on the additive liquid flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants at AOS 1 or AOS 2.</p> <p>During the performance test, the Permittee must continuously monitor the additive liquid flow rate (monitor additive flow rate only if additive is used). The Permittee shall calculate the average additive liquid flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Additive Liquid Flow Rate Limit shall be reset as follows:</p> <p>- if the lowest 1-hour average additive liquid flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Flow Rate Limit remains unchanged; or</p> <p>- if the lowest 1-hour average additive liquid flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run; or</p> <p>- if the lowest 1-hour average additive liquid flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average water flow rate of a compliant test run.</p> <p>The new Additive Liquid 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. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>

Requirement number	Requirement and citation
5.68.28	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Pressure Drop Range Limit, Additive Liquid Flow Rate Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.68.29	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.68.30	Hours: Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain a record of the total hours of operation. This shall be based on written 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, Title I Condition: Avoid major source under 40 CFR 63.2]
5.68.31	Hours: Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total hours of operation for the previous calendar month using the daily records; and 2) The 12-month rolling sum hours of operation for the previous 12-month period by summing the monthly hours of operation for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.68.32	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop, water flow rate, and additive liquid 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. This includes, but is not limited to, maintaining necessary parts for routine repairs. The water flow monitoring device shall be set at a point no less than: 1) the minimum water flow rate plus the margin of error of the monitoring device based on manufacturer specifications and as identified in the Operation and Maintenance Plan; or 2) the minimum water flow rate plus 2% of the water flow rate. The additive flow monitoring device shall be set at a point no less than: 1) the minimum additive flow rate plus the margin of error of the monitoring device based on manufacturer specifications and as identified in the Operation and Maintenance Plan; or 2) the minimum additive flow rate plus 2% of the additive flow rate. [Minn. R. 7007.0800, subp. 4]
5.68.33	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every

Requirement number	Requirement and citation
	12 months and shall maintain a written record of any action resulting from the calibration or the replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.68.34	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.68.35	<p>Accumulation of Deviations Report: If there is an accumulation of AOS 1 water flow rate deviations, AOS 2 water flow rate deviations, AOS 1 additive liquid flow rate deviations, AOS 2 additive liquid flow rate deviations, AOS 1 pressure drop deviations or AOS 2 pressure drop deviations greater than 5% of the scrubber operating time during a six-month reporting period, the Permittee must develop and implement a quality improvement plan to address the deviations within 30 days following the six-month reporting period. AOS 1 water flow rate deviations, AOS 2 water flow rate deviations, AOS 1 additive liquid flow rate deviations, AOS 2 additive liquid flow rate deviations, AOS 1 pressure drop deviations or AOS 2 pressure drop deviations include missed readings and any readings outside of the indicator range. If there is an accumulation of AOS 1 water flow rate deviations, AOS 2 water flow rate deviations, AOS 1 additive liquid flow rate deviations, AOS 2 additive liquid flow rate deviations, AOS 1 pressure drop deviations or AOS 2 pressure drop deviations greater than 5% of the control equipment operating time during a subsequent six-month reporting period, the Permittee must revise the quality improvement plan, conduct a root-cause analysis of the failure of the quality improvement plan to address the deviations, and submit the quality improvement plan and the root-cause analysis report to the Commissioner within 30 days following the end of six-month reporting period. Implementation of a quality improvement plan does not excuse the Permittee from compliance with any applicable requirement. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
TREA 17	Grain Handling Baghouse
5.69.1	The Permittee shall vent emissions from any emission unit that vents to STRU 38, except dump pits EQUI 179, EQUI 180 or EQUI 181, to a fabric filter that meets or exceeds the requirements of TREA 17 whenever any emission unit that vents to STRU 38, except dump pits EQUI 179, EQUI 180 or EQUI 181 operates, and operate and maintain a fabric filter that meets or exceeds the requirements of TREA 17 at all times that any emissions are vented to it. The Permittee shall document periods of non-operation of the control equipment TREA 17 whenever any emission unit that vents to STRU 38, except dump pits EQUI 179, EQUI 180 or EQUI 181, is operating. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.2	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R.

Requirement number	Requirement and citation
	<p>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.</p> <p>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. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.69.3	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 17, such control equipment must meet or exceed the control efficiency requirements of TREA 17 as well as comply with all other requirements of TREA 17, TFAC 2, STRU 38 and Permit Appendix D. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.0050 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.

Requirement number	Requirement and citation
	<p>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 38. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.</p> <p>5. The Permittee must provide a copy of the most recent hood certification test that identifies and documents the air flow parameters relied upon in the evaluation with the Annual Report.</p> <p>6. This fabric filter is required to control emissions that are subject to performance testing at STRU 38. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.</p> <p>7. The Permittee may increase the existing short-term process throughput limit contained at STRU 38 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 38.</p> <p>8. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 38. The performance test may reset the short-term throughput limit at STRU 38, must confirm compliance with emission limits identified at STRU 38, and must verify that the fabric filter can achieve the outlet concentration (0.0050 gr/dscf) and airflow identified in Appendix C.</p> <p>9. The performance test may reset the performance test due dates and frequency at STRU 38 as identified within a Notice of Compliance letter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5-69.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 99.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5-69.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter \geq 80 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]</p>

Requirement number	Requirement and citation
5.69.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 99.2 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron >= 95.6 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.8	The Permittee shall operate and maintain the hoods associated with EQUI 179, EQU 180 and EQUI 181 (Dump Pits) so that each achieves a capture efficiency for PM/PM < 10 micron/ PM < 2.5 microns >= 80 percent capture efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.69.9	The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]
5.69.10	Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change. A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]
5.69.11	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.69.12	Visible Emissions: The Permittee shall check the fabric filter stack (STRU 38) for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.13	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, Title I Condition: Avoid major source under

Requirement number	Requirement and citation
	40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.14	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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]</p>
5.69.15	<p>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]</p>
5.69.16	<p>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]</p>
5.69.17	<p>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, subp. 4, Minn. R. 7007.0800, subp. 5]</p>
5.69.18	<p>Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment components not covered by the quarterly inspections. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subps. 4-5]</p>
5.69.19	<p>Hood Certification and Evaluation: The Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address</p>

Requirement number	Requirement and citation
	how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.69.20	Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
TREA 18	Grain Milling Baghouse
5.70.1	The Permittee shall vent emissions from any emission unit that vents to STRU 39 to a fabric filter that meets the requirements of TREA 18 whenever any emission unit that vents to STRU 39 operates, and shall operate and maintain a fabric filter that meets the requirements of TREA 18 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.70.2	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 18, such control equipment must meet or exceed the control efficiency requirements of TREA 18 as well as comply with all other requirements of TREA 18, TFAC 2, STRU 39 and Permit Appendix D. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally: 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.0050 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take

Requirement number	Requirement and citation
	<p>into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report.</p> <p>2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.</p> <p>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 39. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.</p> <p>5. This fabric filter is required to control emissions that are subject to performance testing at STRU 39. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.</p> <p>6. The Permittee may increase the existing short-term process throughput limit contained at STRU 39 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 39.</p> <p>7. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 39. The performance test may reset the short-term throughput limit at STRU 39, must confirm compliance with emission limits identified at STRU 39, and must verify that the fabric filter can achieve the outlet concentration (0.0050 gr/dscf) and airflow identified in Appendix C.</p> <p>8. The performance test may reset the performance test due dates and frequency at STRU 39 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.70.3	Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate

Requirement number	Requirement and citation
	<p>permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.70.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 99.4 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.70.5	<p>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. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.70.6	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 2.5 micron \geq 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.70.7	<p>Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>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. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.70.8	<p>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]</p>

Requirement number	Requirement and citation
5.70.9	Visible Emissions: The Permittee shall check the fabric filter stack (STRU 39) for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.70.10	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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.70.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.70.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.70.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.70.14	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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.70.15	Annual Inspections: At least once per calendar year, or more frequently if required by the

Requirement number	Requirement and citation
	manufacturer recommendations, the Permittee shall inspect the internal control equipment components not covered by the quarterly inspections. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subps. 4&5]
TREA 19	DDGS Loadout Baghouse
5.71.1	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter \geq 97.7 percent control efficiency for all EQUIs controlled by TREA 19. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.2	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM $<$ 10 micron \geq 82.4 percent control efficiency for all EQUIs controlled by TREA 19. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.3	The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for PM $<$ 2.5 micron \geq 76.0 percent control efficiency for all EQUIs controlled by TREA 19. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.71.4	Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time 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. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.5	The Permittee shall vent emissions from any emission unit that vents to STRU 40 to a fabric filter that meets the requirements of TREA 19 whenever any emission unit that vents to STRU 40 operates, and shall operate and maintain a fabric filter that meets the requirements of TREA 19 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control

Requirement number	Requirement and citation
5.71.6	<p>equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p> <p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 19, such control equipment must meet or exceed the control efficiency requirements of TREA 19 as well as comply with all other requirements of TREA 19, TFAC 2, STRU 40 and Permit Appendix D. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.0050 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 40. The documentation must be submitted with the Annual Report. 4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.7	<p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or</p>

Requirement number	Requirement and citation
	<p>another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.71.8	The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter \geq 80.0 percent collection efficiency. [Minn. R. 7011.1005 , subp. 3(E)]
5.71.9	The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]
5.71.10	Visible Emissions: The Permittee shall check the fabric filter stack (STRU 40) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. If visible emissions are noted, emissions shall be considered uncontrolled during that 24-hour period. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.11	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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.71.12	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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]</p>

Requirement number	Requirement and citation
5.71.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.71.14	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.71.15	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. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.71.16	Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer recommendations, the Permittee shall inspect the internal control equipment components not covered by the quarterly inspections. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subps. 4-5]
5.71.17	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 21	Corn Flour Conveyance Vent
5.72.1	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 99.6 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.72.2	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. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.72.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 96.0 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.

Requirement number	Requirement and citation
	7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.72.4	<p>Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.72.5	The Permittee shall vent emissions from any emission unit that vents to STRU 43 to a fabric filter that meets the requirements of TREA 21 whenever any emission unit that vents to STRU 43 operates, and shall operate and maintain a fabric filter that meets the requirements of TREA 21 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment TREA 21 whenever EQUI 213 is operating. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.72.6	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 21, such control equipment must meet or exceed the control efficiency requirements of TREA 21 as well as comply with all other requirements of TREA 21, TFAC 2, STRU 43 and Permit Appendix D. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment and conduct the appropriate Equivalent or Better Dispersion (EBD) analysis or dispersion modeling, as applicable.</p> <p>If no amendment is needed for the replacement or modification, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. Additionally, the Permittee shall include the following with Form CD-05:</p> <ol style="list-style-type: none"> 1. A copy of the manufacturer's guarantee that the replaced or modified fabric filter can achieve a grain outlet concentration less than or equal to 0.01 gr/dscf for PM, PM10, and PM2.5.

Requirement number	Requirement and citation
	<p>2. A calculation of PM, PM10, and PM2.5 emissions in lb/hr, based on the airflow and grain outlet concentration, verifying that emissions will remain below the lb/hr limits specified in STRU 43. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed 500 dscfm.</p> <p>3. A copy of the EBD Modeling Results, if one is triggered.</p> <p>4. A completed Form GI-04 for any revised stack (STRU 43) parameters. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.72.7	<p>Prior to replacing the control equipment, the Permittee is not required to complete calculations described in Minn. R. 7007.1200, subp. 2, but is required to complete calculations described in Minn. R. 7007.1200, subp. 3. A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.72.8	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p>
5.72.9	<p>Visible Emissions: The Permittee shall check the fabric filter stack (STRU 43) for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.72.10	<p>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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.72.11	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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]</p>

Requirement number	Requirement and citation
5.72.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.72.13	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.72.14	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. If inspection frequency is based upon manufacturer's specifications, then manufacturer specifications supporting the frequency must be included in the Operation and Maintenance plan. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.72.15	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
TREA 23	DDGS Storage Silo Fill Vent #1
5.73.1	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 98.9 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.73.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 97.7 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.73.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 86.6 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.73.4	The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter ≥ 80.0 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]
5.73.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R.

Requirement number	Requirement and citation
	<p>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.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.73.6	<p>The Permittee must vent emissions from all emission units that vent to STRU 45 to a fabric filter that meets the requirements of TREA 23, whenever any emission unit that vents to STRU 45 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 23 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment TREA 23 whenever any emission unit vents to it. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.73.7	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 23, such control equipment must meet or exceed the control efficiency requirements of TREA 23 as well as comply with all other requirements of TREA 23, TFAC 2 and STRU 45. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable.</p> <p>Additionally:</p> <ol style="list-style-type: none"> The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.01 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report.

Requirement number	Requirement and citation
	<p>2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.</p> <p>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 45. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.73.8	<p>Prior to replacing the control equipment, the Permittee is not required to complete calculations described in Minn. R. 7007.1200, subp. 2, but is required to complete calculations described in Minn. R. 7007.1200, subp. 3. A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.73.9	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p>
5.73.10	<p>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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.73.11	<p>Visible Emissions: The Permittee shall check the fabric filter stack (STRU 45) for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.73.12	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or

Requirement number	Requirement and citation
	<p>- 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]</p>
5.73.13	<p>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]</p>
5.73.14	<p>The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2]</p>
5.73.15	<p>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, subp. 4, Minn. R. 7007.0800, subp. 5]</p>
5.73.16	<p>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]</p>
TREA 25	RTO
5.74.1	<p>The Permittee shall vent emissions from any emission unit that vents to STRU 47 to TREA 25 whenever any emission unit that vents to STRU 47 operates, and operate and maintain TREA 25. The Permittee shall document periods of non-operation of the control equipment TREA 25 whenever emissions are vented to it. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.74.2	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 98.0 percent control efficiency for TREA 25. This limit is applicable to all equipment venting to STRU 47. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.74.3	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall</p>

Requirement number	Requirement and citation
	<p>control efficiency for Acetaldehyde \geq 90.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.4	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Acrolein \geq 90.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Formaldehyde \geq 90.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.6	<p>The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Methanol \geq 90.0 percent control efficiency unless a new HAP control efficiency is set pursuant to Minn. R. 7017.2025, subp. 3(B) and as described in COMG 3. The HAP control efficiency is to be used in the calculations in COMG 3 for calculating emissions during uncontrolled operation, and for calculating emissions during periods when control equipment monitoring equipment is operating outside of its prescribed indicator range. [Minn. R. 7017.2025, subp. 3(B), Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.7	<p>Temperature \geq 1500 degrees Fahrenheit 3-hour rolling average at the combustion chamber outlet, unless a new limit is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC and CO emitted during that time shall be</p>

Requirement number	Requirement and citation
	<p>considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.b(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.8	<p>Quarterly Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer's specifications, the Permittee shall inspect the control equipment external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]</p>
5.74.9	<p>Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer's specifications, the Permittee shall inspect the control equipment internal components, including but not limited to the refractory, heat exchanger, and electrical systems. Each inspection must be separated by at least 10 months, but no more than 14 months. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]</p>
5.74.10	<p>The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [40 CFR 64.9(b), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.74.11	<p>Annual Calibration: The Permittee shall calibrate the temperature monitor, or replace with a calibrated 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. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]</p>
5.74.12	<p>Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [40 CFR 64.7(b), Minn. R. 7007.0800, subp. 4, Minn. R. 7017.0200]</p>
5.74.13	<p>Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the regenerative thermal oxidizer. The monitoring device shall have a margin of error less than the</p>

Requirement number	Requirement and citation
	greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.3(b)(4)(ii), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.74.14	Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [40 CFR 64.3(b), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.74.15	The Permittee shall operate and maintain the RTO any time that any process equipment controlled by the RTO is in operation. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.74.16	RTO Breakdown: In the event of a breakdown, the Permittee shall stop feed into any dryer as soon as the breakdown is discovered and must cease operation of any dryer as soon as possible. The Permittee shall submit a breakdown notification if required by Minn. R. 7019.1000, subp. 2. Breakdowns of any length are considered a deviation as defined by Minn. R. 7007.0100, subp. 8. The Permittee shall identify the length of time that any dryer continued operation after breakdown of associated control equipment. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 14]
5.74.17	Permitted Fuel: Natural Gas only. [Minn. R. 7005.0100, subp. 35a]
5.74.18	<p>Protocol for Resetting the Minimum Temperature Limit: The Permittee shall conduct performance testing to measure the VOC as mass emission rate and VOC destruction efficiency as required elsewhere in this permit. If the Minimum Temperature Limit is to be reset, the reset shall be based on the average of all temperature values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the temperature in the combustion chamber, and calculate the average temperature as the average of all temperature measurements during all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. Testing to verify an emission factor does not reset short-term process throughput limits.</p> <p>The Minimum Temperature Limit shall be reset as follows:</p> <ul style="list-style-type: none"> - if the 3-hour average temperature recorded during the test is less than 25 deg Fahrenheit over the established Minimum Temperature Limit, the limit remains unchanged; or

Requirement number	Requirement and citation
	<p>-If the 3-hour average temperature recorded during the test is 25 deg Fahrenheit or greater than the established Minimum Temperature Limit, it shall be reset as the average temperature of the performance test. Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test; or</p> <p>- if the 3-hour average temperature recorded during the test is less than the established Minimum Temperature Limit, it shall be reset as the average temperature of the performance test. Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test.</p> <p>Ongoing compliance with the temperature limit will be determined using the same data acquisition and reduction as was used during the performance test. During each performance test, the Permittee must continuously monitor the centrifuge feed rate, syrup feed rate, and beer feed rate and any other process and control parameters detailed in Appendix E. A print-out of the continuous records relied upon during testing, and used to calculate the short-term throughput limit must be included with the performance test results and submitted to the Commissioner with the performance test report. The Permittee shall calculate the average centrifuge feed rate, syrup feed rate, and beer feed rate for each individual compliant test run.</p> <p>The new Minimum Temperature Limit determined using this Protocol shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Title I Condition: 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.74.19	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Minimum Temperature Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.74.20	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
5.74.21	<p>Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall</p>

Requirement number	Requirement and citation
	take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/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 regenerative thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken. [40 CFR 64.7(d)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.74.22	The Permittee shall operate and maintain the thermal oxidizer and variable flow device (VFD) in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.74.23	After instillation of the process O2 monitor, the Permittee shall operate a process O2 monitor at all times equipment is venting to STRU 47. Oxygen concentration shall not fall below a value based on data recorded during the most recent compliant performance test (performance results received a Notice of Compliance). [Minn. R. 7007.0800, subp. 4, Title I Condition: 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.74.24	After instillation of the process O2 monitor, Daily Recordkeeping. On each day of operation, the Permittee shall record and maintain a record of the O2. This shall be based on written records. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.74.25	Accumulation of Deviations Report: If there is an accumulation of Temperature deviations greater than 5% of the regenerative thermal oxidizer operating time during a six-month reporting period, the Permittee must develop and implement a quality improvement plan to address the deviations within 30 days following the six-month reporting period. Temperature deviations include missed readings and any readings outside of the indicator range. If there is an accumulation of temperature deviations greater than 5% of the control equipment operating time during a subsequent six-month reporting period, the Permittee must revise the quality improvement plan, conduct a root-cause analysis of the failure of the quality improvement plan to address the deviations, and submit the quality improvement plan and the root-cause analysis report to the Commissioner within 30 days following the end of six-month reporting period. Implementation of a quality improvement plan does not excuse the Permittee from compliance with any applicable requirement. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
TREA 26	DDGS Storage Silo Fill Vent #2
5.75.1	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 96.3 percent control efficiency. [Title I Condition: Avoid major source under

Requirement number	Requirement and citation
	40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron \geq 85.4 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.75.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron \geq 16.2 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.75.4	<p>Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.75.5	The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter \geq 80.0 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]
5.75.6	The Permittee shall vent emissions from any emission unit that vents to STRU 48 to a fabric filter meeting the requirements of TREA 26 whenever any emission unit that vents to STRU 48 operates, and shall operate and maintain a fabric filter that meets the requirements of TREA 26 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.75.7	If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 26, such control equipment must meet or exceed the control efficiency requirements of TREA 26 as well as comply with all other requirements of TREA 26, TFAC 2 and STRU 48. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally:

Requirement number	Requirement and citation
	<p>1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.01 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report.</p> <p>2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.</p> <p>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 48. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.75.8	<p>Prior to replacing the control equipment, the Permittee is not required to complete calculations described in Minn. R. 7007.1200, subp. 2, but is required to complete calculations described in Minn. R. 7007.1200, subp. 3. A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.75.9	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p>
5.75.10	<p>Visible Emissions: The Permittee shall check the fabric filter stack (STRU 48) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read</p>

Requirement number	Requirement and citation
	and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.11	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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.75.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.75.13	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: <ul style="list-style-type: none"> - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.75.14	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.75.15	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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.75.16	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use

Requirement number	Requirement and citation
	by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
TREA 28	Dryer #1 (Dryer B) Generator Catalyst
5.76.1	The Permittee shall operate and maintain the control device such that it achieves an overall control efficiency for Carbon Monoxide \geq 70.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.76.2	Pressure Drop \geq 6.26 and \leq 10.26 inches of water column as determined during the 6/18/2013 initial performance test, unless a new compliance test is conducted as required by 40 CFR Section 63.6640(b) when the Permittee changes the catalyst. The Permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2b(2)(a), Minn. R. 7011.8150]
5.76.3	The Permittee shall maintain the exhaust Temperature \geq 450 and \leq 1350 degrees Fahrenheit using a 4 hour rolling average at the catalyst inlet. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2(2)(b), Minn. R. 7011.8150]
5.76.4	Pressure Drop Monitoring: Measure the pressure drop across the catalyst once per month and demonstrate that the pressure drop across the catalyst is within the operating limitation established during the performance testing. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.76.5	If the Permittee changes the catalyst, the values of the operating parameters measured during the initial performance test must be reestablished. To reestablish the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that the emission unit is meeting the required emission limitations as specified in this permit. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.76.6	The Permittee shall operate and maintain each oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.76.7	<p>Site Specific Monitoring Plan for each CPMS. Prepare a site specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of alternative monitoring system quality assurance and quality control procedures.</p> <ol style="list-style-type: none"> 1) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; 2) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide

Requirement number	Requirement and citation
	<p>representative measurements; 3) Equipment performance evaluations, system accuracy audits, or other audit procedures; 4) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1)(ii) and (c)(3); and 5) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (c)(1), and (e)(2)(i). [40 CFR 63.6625(b)(1), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]</p>
5.76.8	<p>The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site specific monitoring plan. [40 CFR 63.6625(b)(2), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]</p>
5.76.9	<p>Temperature Monitoring: The CPMS must collect data at least once every 15 minutes. Reduce these data to 4 hour rolling averages. Maintain the 4 hour rolling averages within the operating limitations for the catalyst inlet temperature. [40 CFR 63.6625(b)(3), Minn. R. 7011.8150]</p>
5.76.10	<p>For a CPMS measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63.6625(b)(4), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]</p>
5.76.11	<p>Conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site specific monitoring plan at least annually. [40 CFR 63.6625(b)(5), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]</p>
5.76.12	<p>Conduct a performance evaluation of each CPMS in accordance with your site specific monitoring plan. [40 CFR 63.6625(b)(6), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]</p>
TREA 29	Cooling Tower Generator Catalyst
5.77.1	<p>The Permittee shall operate and maintain the control device such that it achieves an overall control efficiency for Carbon Monoxide ≥ 70.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.77.2	<p>Pressure Drop ≥ 7.53 and ≤ 11.53 inches of water column as determined during the 6/18/2013 initial performance test, unless a new compliance test is conducted as required by 40 CFR Section 63.6640(b) when the Permittee changes the catalyst. The Permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2b(2)(a), Minn. R. 7011.8150]</p>
5.77.3	<p>The Permittee shall maintain the exhaust Temperature ≥ 450 and ≤ 1350 degrees Fahrenheit using</p>

Requirement number	Requirement and citation
	a 4-hour rolling average at the catalyst inlet. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2(2)(b), Minn. R. 7011.8150]
5.77.4	Pressure Drop Monitoring: Measure the pressure drop across the catalyst once per month and demonstrate that the pressure drop across the catalyst is within the operating limitation established during the performance testing. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.77.5	If the Permittee changes the catalyst, the values of the operating parameters measured during the initial performance test must be reestablished. To reestablish the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that the emission unit is meeting the required emission limitations as specified in this permit. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.77.6	The Permittee shall operate and maintain each oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.77.7	<p>Site Specific Monitoring Plan for each CPMS. Prepare a site specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of alternative monitoring system quality assurance and quality control procedures:</p> <ol style="list-style-type: none"> 1) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; 2) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements; 3) Equipment performance evaluations, system accuracy audits, or other audit procedures; 4) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1)(ii) and (c)(3); and 5) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (c)(1), and (c)(2)(i). [40 CFR 63.6625(b)(1), 40 CFR 63.8(c), Minn. R. 7011.8150, Minn. R. 7017.1010]
5.77.8	The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site specific monitoring plan. [40 CFR 63.6625(b)(2), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.77.9	Temperature Monitoring: The CPMS must collect data at least once every 15 minutes. Reduce these data to 4-hour rolling averages. Maintain the 4-hour rolling averages within the operating limitations

Requirement number	Requirement and citation
	for the catalyst inlet temperature. [40 CFR 63.6625(b)(3), Minn. R. 7011.8150]
5.77.10	For a CPMS measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63.6625(b)(4), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.77.11	Conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site specific monitoring plan at least annually. [40 CFR 63.6625(b)(5), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]
5.77.12	Conduct a performance evaluation of each CPMS in accordance with your site specific monitoring plan. [40 CFR 63.6625(b)(6), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]
TREA 30	Process Generator Catalyst
5.78.1	The Permittee shall operate and maintain the control device such that it achieves an overall control efficiency for Carbon Monoxide \geq 70 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.78.2	Pressure Drop \geq 5.34 and \leq 9.34 inches of water column as determined during the 6/18/2013 initial performance test, unless a new compliance test is conducted as required by 40 CFR Section 63.6640(b) when the Permittee changes the catalyst. The Permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2b(2)(a), Minn. R. 7011.8150]
5.78.3	The Permittee shall maintain the exhaust Temperature \geq 450 and \leq 1350 degrees Fahrenheit using a 4 hour rolling average at the catalyst inlet. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 2(2)(b), Minn. R. 7011.8150]
5.78.4	Pressure Drop Monitoring: Measure the pressure drop across the catalyst once per month and demonstrate that the pressure drop across the catalyst is within the operating limitation established during the performance testing. [40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.78.5	If the Permittee changes the catalyst, the values of the operating parameters measured during the initial performance test must be reestablished. To reestablish the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that the emission unit is meeting the required emission limitations as specified in this permit. [40 CFR 63.6640(b), Minn. R. 7011.8150]
5.78.6	The Permittee shall operate and maintain each oxidation catalyst in accordance with the Operation

Requirement number	Requirement and citation
	and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.78.7	<p>Site Specific Monitoring Plan for each CPMS. Prepare a site specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the Permittee may request approval of alternative monitoring system quality assurance and quality control procedures:</p> <ol style="list-style-type: none"> 1) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; 2) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements; 3) Equipment performance evaluations, system accuracy audits, or other audit procedures; 4) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1)(ii) and (c)(3); and 5) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (c)(1), and (c)(2)(i). [40 CFR 63.6625(b)(1), 40 CFR 63.8(c), Minn. R. 7011.8150, Minn. R. 7017.1010]
5.78.8	The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site specific monitoring plan. [40 CFR 63.6625(b)(2), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.78.9	Temperature Monitoring: The CPMS must collect data at least once every 15 minutes. Reduce these data to 4 hour rolling averages. Maintain the 4 hour rolling averages within the operating limitations for the catalyst inlet temperature. [40 CFR 63.6625(b)(3), Minn. R. 7011.8150]
5.78.10	For a CPMS measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. [40 CFR 63.6625(b)(4), 40 CFR 63.6640(a), 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150]
5.78.11	Conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site specific monitoring plan at least annually. [40 CFR 63.6625(b)(5), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]
5.78.12	Conduct a performance evaluation of each CPMS in accordance with your site specific monitoring plan. [40 CFR 63.6625(b)(6), 40 CFR 63.8(e), Minn. R. 7011.8150, Minn. R. 7017.1010]
TREA 36	DDGS Loadout Leg Filter

Requirement number	Requirement and citation
5.79.1	<p>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.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.79.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.9 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.79.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.9 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.79.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.2 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.79.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter ≥ 80.0 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]</p>
5.79.6	<p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.79.7	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and</p>

Requirement number	Requirement and citation
5.79.8	<p>utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p> <p>The Permittee shall vent emissions from all emission units that vent to STRU 77 to a fabric filter that meets the requirements of TREA 36 whenever any emission unit that vents to STRU 77 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 36 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.79.9	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 36, such control equipment must meet or exceed the control efficiency requirements of TREA 36 as well as comply with all other requirements of TREA 36, TFAC 2 and STRU 77. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally:</p> <ol style="list-style-type: none"> 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.01 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2. 3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU

Requirement number	Requirement and citation
	<p>77. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.</p> <p>5. This fabric filter is required to control emissions that are subject to performance testing at STRU 77. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.</p> <p>6. The Permittee may increase the existing short-term process throughput limit contained at STRU 77 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 77.</p> <p>7. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 77. The performance test may reset the short-term throughput limit at STRU 77, must confirm compliance with emission limits identified at STRU 77, and must verify that the fabric filter can achieve the outlet concentration (0.01 gr/dscf) and airflow identified in Appendix C.</p> <p>8. The performance test may reset the performance test due dates and frequency at STRU 77 as identified within a Notice of Compliance letter. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.79.10	<p>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]</p>
5.79.11	<p>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. 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), 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]</p>

Requirement number	Requirement and citation
5.79.12	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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]</p>
5.79.13	<p>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. [Minn. R. 7007.0800, subp. 4]</p>
5.79.14	<p>Daily Inspections: The Permittee shall do the following, once every 24 hours when in operation: 1). Inspect the fabric filter stack STRU 77 for any visible emissions during daylight hours, except during inclement weather. 2). During inclement weather, read and record the pressure drop across the fabric filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]</p>
5.79.15	<p>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, subp. 4, Minn. R. 7007.0800, subp. 5]</p>
5.79.16	<p>The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]</p>
TREA 37	Fluid Bed Cooler with Baghouse
5.80.1	<p>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.</p>

Requirement number	Requirement and citation
	<p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.80.2	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 97.0 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.80.3	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.0 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.80.4	<p>The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 93.8 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.80.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter ≥ 80.0 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]</p>
5.80.6	<p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.80.7	<p>The Permittee shall vent emissions from all emission units that vent to STRU 78 to a fabric filter that meets the requirements of TREA 37 whenever any emission unit that vents to STRU 78 operates, and must operate and maintain a fabric filter that meets the requirements of TREA 37 at all times that any emissions vent to it. The Permittee must document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
5.80.8	The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]
5.80.9	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 37, such control equipment must meet or exceed the control efficiency requirements of TREA 37 as well as comply with all other requirements of TREA 37, TFAC 2 and STRU 78. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. Additionally:</p> <ol style="list-style-type: none"><li>1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.0050 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.0050 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.0050 gr/dscf, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report.<li>2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.<li>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 78. The documentation must be submitted with the Annual Report.<li>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.<li>5. This fabric filter is required to control emissions that are subject to performance testing at STRU 78.

Requirement number	Requirement and citation
	<p>Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.</p> <p>6. The Permittee may increase the existing short-term process throughput limit contained at STRU 78 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 78.</p> <p>7. Within 90 days of initial startup of a modified or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 78. The performance test may reset the short-term throughput limit at STRU 78, must confirm compliance with emission limits identified at STRU 78, and must verify that the fabric filter can achieve the outlet concentration (0.0050 gr/dscf) and airflow identified in Appendix C.</p> <p>8. The performance test may reset the performance test due dates and frequency at STRU 78 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.80.10	<p>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]</p>
5.80.11	<p>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. 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, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.80.12	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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</p>

Requirement number	Requirement and citation
	fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.80.13	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.80.14	Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Inspect the fabric filter stack STRU 78 for any visible emissions during daylight hours, except during inclement weather. 2). During inclement weather, read and record the pressure drop across the fabric filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.80.15	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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.80.16	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
TREA 38	DDGS Storage Silo Fill Vent #3
5.81.1	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 96.3 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.81.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 10 micron \geq 85.4 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.81.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 2.5 micron \geq 16.2 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.81.4	Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved

Requirement number	Requirement and citation
	<p>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.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.81.5	<p>The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter \geq 80 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]</p>
5.81.6	<p>The Permittee shall vent emissions from all emission units that vent to STRU 84 to a fabric filter that meets the requirements of TREA 38 whenever any emission unit that vents to STRU 84 operates, and operate and maintain a fabric filter that meets the requirements of TREA 38 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.81.7	<p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 38, such control equipment must meet or exceed the control efficiency requirements of TREA 38 as well as comply with all other requirements of TREA 38, TFAC 2 and EQUI 290. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment as applicable.</p> <p>Additionally:</p> <ol style="list-style-type: none"> 1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.01 gr/dscf, for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.01 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.01 gr/dscf, for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report. 2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed

Requirement number	Requirement and citation
	<p>in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.</p> <p>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 84. The documentation must be submitted with the Annual Report.</p> <p>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.</p> <p>5. This fabric filter is required to control emissions that are subject to performance testing at STRU 84. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.</p> <p>6. The Permittee may increase the existing short-term process throughput limit contained at STRU 84 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 84.</p> <p>7. Within 90 days of initial startup of a modified or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 84. The performance test may reset the short-term throughput limit at STRU 84, must confirm compliance with emission limits identified at STRU 84, and must verify that the fabric filter can achieve the outlet concentration (0.01 gr/dscf) and airflow identified in Appendix C.</p> <p>8. The performance test may reset the performance test due dates and frequency at STRU 84 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.81.8	<p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.81.9	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p>

Requirement number	Requirement and citation
5.81.10	Visible Emissions: The Permittee shall check the fabric filter stack STRU 84 for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.81.11	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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.81.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.81.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.81.14	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.81.15	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, subp. 4, Minn. R. 7007.0800, subp. 5]

Requirement number	Requirement and citation
5.81.16	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
TREA 39	DDGS Conveying Baghouse
5.82.1	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 99.7 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.82.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 10 micron \geq 98.8 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.82.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM $<$ 2.5 micron \geq 93.0 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.82.4	<p>Pressure Drop \geq 0.5 and \leq 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>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. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.82.5	The Permittee shall operate and maintain the control equipment such that it achieves a collection efficiency for Particulate Matter \geq 80.0 percent collection efficiency. [Minn. R. 7011.1005, subp. 3(E)]
5.82.6	The Permittee shall vent emissions from all emission units that vent to STRU 85 to a fabric filter that meets the requirements of TREA 39 whenever any emission unit that vents to STRU 85 operates, and operate and maintain a fabric filter that meets the requirements of TREA 39 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07,

Requirement number	Requirement and citation
5.82.7	<p>subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p> <p>If the Permittee replaces or modifies a fabric filter that meets the requirements of TREA 39, such control equipment must meet or exceed the control efficiency requirements of TREA 39 as well as comply with all other requirements of TREA 39, TFAC 2 and STRU 85. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment. Additionally:</p> <ol style="list-style-type: none"><li>1. The Permittee must justify and document that the system installed after the fabric filter is replaced or modified can achieve a grain outlet concentration (gr/dscf) less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The documentation shall discuss differences between the new and prior systems and include manufacturer guarantee for grain outlet concentration (gr/dscf) for the new system. If the manufacturer guarantee is greater than 0.01 gr/dscf, the Permittee shall complete an analysis based upon performance test data from a similar operation (equivalent or better control technology and similar materials being controlled) to determine an estimated design outlet grain outlet concentration (gr/dscf) that is less than or equal to 0.01 gr/dscf for PM, PM10 and PM2.5. The analysis must be based upon the results of the performance test data, and conservatively take into account differences in inlet grain loading (gr/dscf) and airflow. The documentation must be submitted with the Annual Report.<li>2. The airflow (dscfm) for the replaced or modified fabric filter must meet or exceed the airflow listed in Appendix C of this permit. The Permittee must provide verification of the design air flow from the manufacturer or vendor with the Annual Report. If the airflow does not meet or exceed the airflow listed in Appendix C of this permit, an Equivalent or Better Dispersion (EBD) analysis is triggered. The EBD analysis must follow the procedures described at TFAC 2.<li>3. The Permittee must provide a calculation, based on the airflow and grain outlet concentration, verifying that emissions of PM, PM10 and PM2.5 will remain below the lb/hr limits specified at STRU 85. The documentation must be submitted with the Annual Report.<li>4. The Permittee must provide a copy of the EBD Modeling Results, if one is triggered, in the Annual Report.<li>5. This fabric filter is required to control emissions that are subject to performance testing at STRU 85. Therefore, the Permittee must submit notification of initial startup and intent to conduct a performance test of any modified or replaced fabric filter.<li>6. The Permittee may increase the existing short-term process throughput limit contained at STRU 85 by using the "Procedure to Increase Process Throughput Limit" requirement at STRU 85.<li>7. Within 90 days of initial startup of a new or replaced fabric filter, the Permittee must conduct a performance test for PM (gr/dscf and lb/hr), PM10 (gr/dscf and lb/hr), and PM2.5 (gr/dscf and lb/hr) following the Performance Testing language at TFAC 2 and the "Procedure to Increase Process Throughput Limit" requirements at STRU 85. The performance test may reset the short-term

Requirement number	Requirement and citation
	<p>throughput limit at STRU 85, must confirm compliance with emission limits identified at STRU 85, and must verify that the fabric filter can achieve the outlet concentration (0.01 gr/dscf) and airflow identified in Appendix C.</p> <p>8. The performance test may reset the performance test due dates and frequency at STRU 85 as identified within a Notice of Compliance letter. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
5.82.8	<p>Prior to replacing the control equipment, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. It is possible that the change may trigger a Title I modification, or another type of modification under state rules. The Permittee must complete the calculations and analysis as described in Minn. R. 7007.1200, subp. 2 and subp. 3 for any change.</p> <p>A permit amendment is needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Minn. R. 7007.0800, subp. 2(A)]</p>
5.82.9	<p>The Permittee shall maintain air pollution control equipment in proper operating condition, and utilize the air pollution control systems as designed. [Minn. R. 7011.1005, subp. 1(B)]</p>
5.82.10	<p>Visible Emissions: The Permittee shall check the fabric filter stack STRU 85 for any visible emissions once each day of operation during daylight hours. 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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.82.11	<p>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, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
5.82.12	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - 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. <p>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</p>

Requirement number	Requirement and citation
	fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.82.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.82.14	The Permittee shall calibrate the pressure gauge, or replace with a calibrated gauge, at least once every 12 months or more often if required by manufacturer's specifications and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A)]
5.82.15	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, subp. 4, Minn. R. 7007.0800, subp. 5]
5.82.16	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
TREA 42	Scrubber pre-condenser
5.83.1	The Permittee shall vent emissions from any emission unit that vents to STRU 37 to a condenser meeting the permit requirements of TREA 42 in series with a scrubber that meets the requirements of TREA 16 whenever any emission unit that vents to STRU 37 operates, and shall operate and maintain a condenser that meets the permit requirements of TREA 42 in series with a scrubber that meets the requirements of TREA 16 at all times that any emissions vent to it. The Permittee shall document periods of non-operation of the control equipment whenever any emission unit vents to it. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]
5.83.2	The Permittee shall operate and maintain a condenser that meets the requirements of TREA 42 at all times when emissions are vented to it. The Permittee shall document periods of non-operation of the equipment. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 4(A), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR 52, Title I Condition: Avoid major source under 40 CFR 63.2]
5.83.3	Condenser condensate flow rate > 0.0 gallons per minute output from condenser (TREA 42) to the

Requirement number	Requirement and citation
	<p>beer well (Output Water Flow Rate Limit), whenever emissions are venting to TREA 16, unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.</p> <p>The Permittee shall record the output water flow rate at least once every 24 hours. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.4	<p>Condenser water flow rate ≥ 45.0 gallons per minute at the condenser inlet (Inlet water flow rate limit), whenever emissions are venting to TREA 16.</p> <p>The Permittee shall record the inlet water flow rate at least once every 24 hours. If the recorded inlet water flow rate is above the maximum flow rate limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again below the maximum flow rate limit. The period of time for which the flow rate is above the maximum limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.5	<p>The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the condenser inlet temperature. Each temperature monitoring device shall follow manufacturer recommended operations and maintenance. The Permittee shall record the condenser inlet temperature at least once every 24 hours. [Minn. R. 7007.0800, subps. 4-5]</p>
5.83.6	<p>The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the condenser outlet temperature. Each temperature monitoring device shall follow manufacturer recommended operations and maintenance. The Permittee shall record the condenser outlet temperature at least once every 24 hours. [Minn. R. 7007.0800, subps. 4-5]</p>
5.83.7	<p>Protocol for Resetting the Condenser Condensate Flow Rate Limit: The Permittee shall conduct performance testing at TREA 16 with TREA 42 operating to measure the VOC as mass emission rate, outlet HAP emission factors, HAP control efficiency and VOC control efficiency as required elsewhere in this permit. If the established Output 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 for all pollutants at AOS 1 or AOS 2.</p> <p>During the performance test, the Permittee must continuously monitor the output water flow rate. The Permittee shall calculate the average output water flow rate for each individual compliant test run. Downtime of 15 minutes or more is not to be included as operating time.</p> <p>The established Flow Rate Limit shall be reset as follows:</p>

Requirement number	Requirement and citation
	<p>- if the lowest 1-hour average output water flow rate recorded during a compliant test run is between 100% and 110% of the current limit, it shall not be reset and the established Output Water Flow Rate Limit remains unchanged; or</p> <p>- if the lowest 1-hour average output water flow rate recorded during a compliant test run is lower than the current limit, the limit shall be reset as the lowest 1-hour average output water flow rate of a compliant test run; or</p> <p>- if the lowest 1-hour average output water flow rate recorded during a compliant test run is 10% greater than the current limit, the limit shall be reset as the lowest 1-hour average output water flow rate of a compliant test run.</p> <p>The new Output 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. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.8	<p>Protocol for Resetting the Condenser Water Flow Rate Limit: The Permittee shall conduct performance testing at TREA 16 with TREA 42 operating to measure the VOC as mass emission rate, outlet HAP emission factors, HAP control efficiency and VOC control efficiency as required elsewhere in this permit. If the established Flow Rate Limit is to be reset as described by the Protocol for Resetting the Flow Rate Limits during the most recent MPCA-approved performance test where compliance was demonstrated for all pollutants at AOS 2 on TREA 16, the Condenser Water Flow Rate limits shall be reset to match the revised AOS 2 Water Flow Rate. [Minn. R. 7017.2025, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.9	<p>The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Resetting the Output Water Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]</p>
5.83.10	<p>Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of 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]</p>
5.83.11	<p>Recordkeeping of Condenser Condensate Water Flow Rate, Condenser Water Flow Rate, Inlet Gas Temperature, and Outlet Gas Temperature: At least once each day of operation, the Permittee shall record the time and date of each Output Water Flow Rate, Condenser Water Flow Rate, Inlet Gas Temperature, and Outlet Gas Temperature, and whether or not the recorded values were within the</p>

Requirement number	Requirement and citation
	<p>ranges specified in this permit. [Minn. R. 7007.0800, subs. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.12	<p>Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Read and record the Condenser Condensate Water Flow Rate; 2) Read and record the Condenser Water Flow Rate; 3). Read and record the Inlet Gas Temperature; and 4) Read and record the Outlet Gas Temperature. [Minn. R. 7007.0800, subs. 4-5, Minn. R. 7017.0200, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
5.83.13	<p>Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording Output Water Flow Rate, Condenser Water Flow Rate, Inlet Gas Temperature, and Outlet Gas Temperature as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. This includes, but is not limited to, maintaining necessary parts for routine repairs. [Minn. R. 7007.0800, subp. 4]</p>
5.83.14	<p>The Permittee shall calibrate or replace the Output Water Flow Rate, Condenser Water Flow Rate, Inlet Gas Temperature, and Outlet Gas Temperature monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration or the replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]</p>
5.83.15	<p>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, subs. 4-5]</p>
5.83.16	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - the recorded Output Water Flow Rate, Inlet Gas Temperature and/or Outlet Gas Temperature is below the required rate; - the recorded Condenser Water Flow Rate is above the required rate; or - the condenser or any of its components are found during the inspections to need repair. <p>Corrective actions shall return the Output Water Flow Rate, Condenser Water Flow Rate, Inlet Gas Temperature, and/or Outlet Gas Temperature to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. The Permittee shall keep a record of the type and date of any corrective action taken for each condenser. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>

Requirement number	Requirement and citation
5.83.17	Water Supply Source: Reverse osmosis well water from boiler feed water pumps. (Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A))

6. Submittal/action requirements

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

Requirement number	Requirement and citation
TFAC 2	AI-Corn Clean Fuel LLC
6.1.1	<p>Flexible Language Annual Report: The Permittee must submit an Annual Report: due by 31 days after end of each calendar year following permit issuance. The Permittee must attach the Flexible Language Annual Report to the Annual Compliance Certification Report (Form CR-04) by January 31st. Appendix D of this permit identifies existing equipment, controls and stacks that may be modified by relying upon flexibility provisions contained within the permit. In the Flexible Language Annual Report, the Permittee must:</p> <ol style="list-style-type: none"> 1. Provide a statement that summarizes changes made to equipment, stacks or control equipment identified in Appendix D during the previous calendar year that relied upon flexible language for authorization. If no such changes were made, document this - no further information is required. 2. For any new or modified emission unit, stack or control equipment identified in item 1 above, verify that the appendix contains all of the information needed to describe the change by referring to Forms GI-04, GI-05A and GI-05B. Provide any missing data elements using the MPCA forms, or as an added column to the permit appendix tables. 3. Emission units with both direct and indirect emissions must submit the appropriate amendment application for direct emissions (e.g. new stack parameters on Form GI-04, PTE calculations for direct emissions). If a permit amendment is not required (e.g., the change qualifies as an insignificant modification), attach the PTE calculations and Form GI-04 for the direct emissions to the Flexible Language Annual Report.

Requirement number	Requirement and citation
	<p>4. Include an updated copy of Appendix D that reflects the changes made. All data fields must be completed. The updated copy must reflect all changes made to Appendix D since permit issuance.</p> <p>5. The Flexible Language Annual Report must be submitted with the annual Compliance Certification listed in Section 6 of this permit, in either hard-copy or email.</p> <p>6. For all changes made, the Responsible Official must verify and certify that "the facility has maintained minor source status for New Source Review, the NESHAP program, and has continued to comply with all applicable permit requirements, including short-term throughput limits, hourly emission limits and applicable control efficiencies.". [Minn. R. 7007.0800, subp. 2, Minn. R. 7007.0800, subp. 5, Minn. R. 7007.0800, subp. 6]</p>
6.1.2	<p>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)]</p>
6.1.3	<p>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)]</p>
6.1.4	<p>The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]</p>
COMG 10	Combustion turbine and duct burner
6.2.1	<p>Nitrogen Oxides: The Permittee shall conduct a performance test due annually starting 11/20/2021 to measure NOx concentration (parts per million (ppm) and emissions (lb/hr). Each performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. The Permittee may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. The Permittee must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.</p> <p>The duct burner (EQUI 226) must be in operation during the performance test, and the Permittee must measure the total NOx emissions after the duct burner rather than directly after the turbine (EQUI 225).</p>

Requirement number	Requirement and citation
	<p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 7E, Method 20 or other method approved by MPCA in the performance test plan approval.</p> <p>Performance tests shall be conducted no more than 14 calendar months following the previous performance test. If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, the Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 70 percent of the NOx emission limit for the turbine, the Permittee must resume annual performance tests. [40 CFR 60.4340(a), 40 CFR 60.4400(a-b), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7011.2375, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
COMG 13	Kb Tanks w/ Double-seal System
6.3.1	<p>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 Section 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]</p>
COMG 17	Steam Generating Unit
6.4.1	<p>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 Section 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]</p>
EQUI 60	Dryer #1 (Dryer B) Load Generator
6.5.1	<p>Carbon Monoxide: The Permittee shall conduct a performance test : Due 06/18/2023 every 60 months to measure CO percent reduction (%) and CO emissions (lb/hr) from EQUI 60. The first test is due by the date specified and all subsequent tests are due by the end of each 60-month period</p>

Requirement number	Requirement and citation
	<p>following that date or after 8,760 hours of operation (whichever comes first). Testing shall be conducted to determine CO percent reduction according to the requirements of 40 CFR pt. 63, subp. ZZZZ, Tables 3 and 4, and 40 CFR Section 63.6620. The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval.</p> <p>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.</p> <p>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. [40 CFR 63.6615, 40 CFR 63.6620, 40 CFR pt. 63, subp. ZZZZ, Table 3, 40 CFR pt. 63, subp. ZZZZ, Table 4, 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]</p>
6.5.2	<p>Notification: due 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site specific test plan required under 40 CFR Section 63.7(c), if requested by the Administrator, and to have an observer present during the test. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.7(b)(2), Minn. R. 7011.8150]</p>
6.5.3	<p>Notification of Rescheduled Performance Test: In the event the Permittee is unable to conduct the performance test on the date specified in the performance test notification due to unforeseeable circumstances beyond control, the Permittee must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the Permittee of legal responsibility for compliance with any other applicable provisions of this permit or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act. [Minn. R. 7007.0800, subps. 5 and 6]</p>
6.5.4	<p>The Permittee shall submit a notification : Due by 31 days after the end of each calendar year following permit issuance. The Permittee shall maintain monthly records of engine operating for the calendar year, submit the monthly records for the previous calendar year, and state whether or not EQUI-60 meets the definition of limited use under 40 CFR Section 63.6675. This notification may be included with the Semiannual Compliance Report. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.9(h)(2)(ii), Minn. R. 7011.8150]</p>
6.5.5	<p>CMS Performance Evaluation Notification: due 60 days before Performance Test. Notification of CMS Performance Evaluation is due simultaneously with the notification of Intent to conduct a</p>

Requirement number	Requirement and citation
	performance test. [40 CFR 63.6645(h), 40 CFR 63.6665, 40 CFR 63.9(g), Minn. R. 7011.8150]
6.5.6	Notification of compliance status: due 60 days following Performance Test. A notification is also required when an affected source becomes subject to a relevant standard. [40 CFR 63.6650(b)(8) and (9), Minn. R. 7011.8150]
6.5.7	Annual Compliance Status Report: due 31 days after end of each calendar year following permit issuance. The report covers January 1 to December 31 of each calendar year. Reports must be postmarked or delivered no later than January 31. [40 CFR 63.9(h), Minn. R. 7019.0100]
6.5.8	<p>Notification of compliance status:</p> <p>Each time a notification of compliance status is required under 40 CFR pt. 63, subp. A, the Permittee shall submit to the Commissioner a notification of compliance status containing the information required by 40 CFR Section 63.9(h), signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard.</p> <p>The notification must be sent by the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard. If no performance test is required but opacity or visible emission observations are required, the notification of compliance status shall be sent by the 30th day following the completion of opacity or visible emission observations.</p> <p>Notifications may be combined as long as the due date requirement for each notification is met. [40 CFR 63.9(h), Minn. R. 7019.0100]</p>
6.5.9	Notification. Any change in the information already provided under 40 CFR Section 63.9 shall be provided to the Commissioner and the Administrator in writing within 15 calendar days after the change. [40 CFR 63.9(j), Minn. R. 7019.0100]
6.5.10	<p>The Permittee shall submit a notification : Due 60 calendar days before Date of Construction Start of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e). The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4), Minn. R. 7019.0100]</p>
EQUI-61	Process Generator
6.6.1	Carbon Monoxide: The Permittee shall conduct a performance test : Due 06/18/2023 every 60 months to measure CO percent reduction (%) and CO emissions (lb/hr) from EQUI-61. The first test is due by the date specified and all subsequent tests are due by the end of each 60-month period

Requirement number	Requirement and citation
	<p>following that date or after 8,760 hours of operation (whichever comes first). Testing shall be conducted to determine CO percent reduction according to the requirements of 40 CFR pt. 63, subp. ZZZZ, Tables 3 and 4, and 40 CFR Section 63.6620. The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval.</p> <p>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.</p> <p>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. [40 CFR 63.6615, 40 CFR 63.6620, 40 CFR pt. 63, subp. ZZZZ, Table 3, 40 CFR pt. 63, subp. ZZZZ, Table 4, 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]</p>
6.6.2	<p>Notification: due 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site specific test plan required under 40 CFR Section 63.7(c), if requested by the Administrator, and to have an observer present during the test. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.7(b)(2), Minn. R. 7011.8150]</p>
6.6.3	<p>Notification of Rescheduled Performance Test: In the event the Permittee is unable to conduct the performance test on the date specified in the performance test notification due to unforeseeable circumstances beyond control, the Permittee must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the Permittee of legal responsibility for compliance with any other applicable provisions of this permit or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act. [Minn. R. 7007.0800, subps. 5 and 6]</p>
6.6.4	<p>The Permittee shall submit a notification : Due by 31 days after the end of each calendar year following permit issuance. The Permittee shall maintain monthly records of engine operating for the calendar year, submit the monthly records for the previous calendar year, and state whether or not EQUI-61 meets the definition of limited use under 40 CFR Section 63.6675. This notification may be included with the Semiannual Compliance Report. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.9(h)(2)(ii), Minn. R. 7011.8150]</p>
6.6.5	<p>CMS Performance Evaluation Notification: due 60 days before Performance Test. Notification of CMS Performance Evaluation is due simultaneously with the notification of Intent to conduct a</p>

Requirement number	Requirement and citation
	performance test. [40 CFR 63.6645(h), 40 CFR 63.6665, 40 CFR 63.9(g), Minn. R. 7011.8150]
6.6.6	Notification of compliance status: due 60 days following Performance Test. A notification is also required when an affected source becomes subject to a relevant standard. [40 CFR 63.6650(b)(8) and (9), Minn. R. 7011.8150]
6.6.7	Annual Compliance Status Report: due 31 days after end of each calendar year following permit issuance. The report covers January 1 to December 31 of each calendar year. Reports must be postmarked or delivered no later than January 31. [40 CFR 63.9(h), Minn. R. 7019.0100]
6.6.8	<p>Notification of compliance status:</p> <p>Each time a notification of compliance status is required under 40 CFR pt. 63, subp. A, the Permittee shall submit to the Commissioner a notification of compliance status containing the information required by 40 CFR Section 63.9(h), signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard.</p> <p>The notification must be sent by the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard. If no performance test is required but opacity or visible emission observations are required, the notification of compliance status shall be sent by the 30th day following the completion of opacity or visible emission observations.</p> <p>Notifications may be combined as long as the due date requirement for each notification is met. [40 CFR 63.9(h), Minn. R. 7019.0100]</p>
6.6.9	Notification. Any change in the information already provided under 40 CFR Section 63.9 shall be provided to the Commissioner and the Administrator in writing within 15 calendar days after the change. [40 CFR 63.9(j), Minn. R. 7019.0100]
6.6.10	<p>The Permittee shall submit a notification : Due 60 calendar days before Date of Construction Start of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e). The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4), Minn. R. 7019.0100]</p>
EQUI-62	Cooling Tower Generator
6.7.1	<p>Carbon Monoxide: The Permittee shall conduct a performance test : Due before 06/18/2023 every 60 months to measure CO percent reduction (%) and CO emissions (lb/hr) from EQUI-62. The first test is due by the date specified and all subsequent tests are due by the end of each 60-month period</p>

Requirement number	Requirement and citation
	<p>following that date or after 8,760 hours of operation (whichever comes first). Testing shall be conducted to determine CO percent reduction according to the requirements of 40 CFR pt. 63, subp. ZZZZ, Tables 3 and 4, and 40 CFR Section 63.6620. The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval.</p> <p>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.</p> <p>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. [40 CFR 63.6615, 40 CFR 63.6620, 40 CFR pt. 63, subp. ZZZZ, Table 3, 40 CFR pt. 63, subp. ZZZZ, Table 4, 40 CFR pt. 63, subp. ZZZZ, Table 6, Minn. R. 7011.8150, Minn. R. 7017.2020, subp. 1]</p>
6.7.2	<p>Notification: due 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site specific test plan required under 40 CFR Section 63.7(c), if requested by the Administrator, and to have an observer present during the test. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.7(b)(2), Minn. R. 7011.8150]</p>
6.7.3	<p>Notification of Rescheduled Performance Test: In the event the Permittee is unable to conduct the performance test on the date specified in the performance test notification due to unforeseeable circumstances beyond control, the Permittee must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the Permittee of legal responsibility for compliance with any other applicable provisions of this permit or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act. [Minn. R. 7007.0800, subps. 5 and 6]</p>
6.7.4	<p>The Permittee shall submit a notification : Due by 31 days after the end of each calendar year following permit issuance. The Permittee shall maintain monthly records of engine operating for the calendar year, submit the monthly records for the previous calendar year, and state whether or not EQUI-62 meets the definition of limited use under 40 CFR Section 63.6675. This notification may be included with the Semiannual Compliance Report. [40 CFR 63.6645(a), 40 CFR 63.6665, 40 CFR 63.9(h)(2)(ii), Minn. R. 7011.8150]</p>
6.7.5	<p>CMS Performance Evaluation Notification: due 60 days before Performance Test. Notification of CMS Performance Evaluation is due simultaneously with the notification of Intent to conduct a</p>

Requirement number	Requirement and citation
	performance test. [40 CFR 63.6645(h), 40 CFR 63.6665, 40 CFR 63.9(g), Minn. R. 7011.8150]
6.7.6	Notification of compliance status: due 60 days following Performance Test. A notification is also required when an affected source becomes subject to a relevant standard. [40 CFR 63.6650(b)(8) and (9), Minn. R. 7011.8150]
6.7.7	Annual Compliance Status Report: due 31 days after end of each calendar year following permit issuance. The report covers January 1 to December 31 of each calendar year. Reports must be postmarked or delivered no later than January 31. [40 CFR 63.9(h), Minn. R. 7019.0100]
6.7.8	<p>Notification of compliance status:</p> <p>Each time a notification of compliance status is required under 40 CFR pt. 63, subp. A, the Permittee shall submit to the Commissioner a notification of compliance status containing the information required by 40 CFR Section 63.9(h), signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard.</p> <p>The notification must be sent by the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard. If no performance test is required but opacity or visible emission observations are required, the notification of compliance status shall be sent by the 30th day following the completion of opacity or visible emission observations.</p> <p>Notifications may be combined as long as the due date requirement for each notification is met. [40 CFR 63.9(h), Minn. R. 7019.0100]</p>
6.7.9	Notification. Any change in the information already provided under 40 CFR Section 63.9 shall be provided to the Commissioner and the Administrator in writing within 15 calendar days after the change. [40 CFR 63.9(j), Minn. R. 7019.0100]
6.7.10	<p>The Permittee shall submit a notification : Due 60 calendar days before Date of Construction Start of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e). The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4), Minn. R. 7019.0100]</p>
EQUI 181	Dump Pit #3
6.8.1	<p>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.</p>

Requirement number	Requirement and citation
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
EQUI 184	Pit Conveyor #3
6.9.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 211	Emergency Fire Pump Engine
6.10.1	<p>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 Section 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]</p>
EQUI 249	Fuel additive / 3000 gal / TK014 / T-7050
6.11.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.11.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 281	Loading Rack #5
6.12.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>

Requirement number	Requirement and citation
6.12.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 282	Loading Rack #6
6.13.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.13.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 298	DDGS Silo Discharge Drag #3
6.14.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.14.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 304	Grain Receiving Bin #3
6.15.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>

Requirement number	Requirement and citation
6.15.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 306	Grain Bin Fill Conveyor #3
6.16.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.16.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 307	Reclaim Conveyor #3
6.17.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.17.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 310	Whole Stillage Tank (T-5001)
6.18.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>

Requirement number	Requirement and citation
6.18.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 351	IGE 60K Day Tank 1
6.19.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.19.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 352	IGE 60K Day Tank 2
6.20.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
6.20.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
EQUI 368	IGE Distillation Column C
6.21.1	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>

Requirement number	Requirement and citation
6.21.2	<p>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.</p> <p>The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]</p>
FUGI 3	Truck Traffic on Paved Roads - Paved Road
6.22.1	<p>Fugitive Emission Parameter Test: due 180 days after Permit Issuance to determine the average silt content of the paved roads.</p> <p>For this test, the performance test requirements at Minn. R. 7017.2000 to 7017.2060 do not apply except for the notification and submittal Requirements. The test plan shall conform to ASTM-C-136. Upon written notification from the MPCA that the Fugitive Emission Parameter Test demonstrates that the actual silt content value exceeds the value used in the emission calculations for the modeling (i.e. the limit in this permit) the Permittee shall: recalculate the fugitive emission rate from paved roads, remodel for compliance with the NAAQS and MAAQS, and submit a major amendment to change the necessary limits in this permit. No retest shall be required. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. Stat. 116.07, subd. 4a(a)]</p>
FUGI 5	Valves, Flanges, and Seals (tank leaks) - Equipment Leaks
6.23.1	<p>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 Section 60.15(d)(1) through (7).</p> <p>The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]</p>
6.23.2	<p>The Permittee shall submit a report: Due semiannually, effective after Initial Startup, by the 31st of January and July that includes the information specified in 40 CFR Section 60.487a. [40 CFR 60.487a(a), Minn. R. 7011.2900(D)]</p>
FUGI 12	Fermentation gas/vapor component leaks
6.24.1	<p>The Permittee shall submit a report: Due semiannually, effective after Permit Issuance, by the 31st of January and July that includes the information specified in FUGI 12 of this Permit. This report must occur at the same time as the semiannual report required for FUGI 5 in Section 6 of this permit. [Minn. R. 7007.0800, subp. 6]</p>
STRU 24	TO/HRSG

Requirement number	Requirement and citation
6.25.1	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to verify the emission factor of HAPs (lb/hr) at the outlet and HAP control efficiency.</p> <p>The first test is due by the date specified above. 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 concurrent with the VOC as mass testing conducted for STRU 24 no less than every 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. As the VOC as mass performance test satisfies the HAPs single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>
6.25.2	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 24 is added, modified or replaced to (lb/hr) measure</p>

Requirement number	Requirement and citation
	<p>emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.25.3	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 24 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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 with a Notice of Compliance letter.</p>

Requirement number	Requirement and citation
	<p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.25.4	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 24 is added, modified or replaced to verify HAP emission factors (lb/hr) at the outlet and HAP control efficiency.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>
6.25.5	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 24 is added, modified or replaced to measure VOC control efficiency and VOC as mass (lb/hr).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term</p>

Requirement number	Requirement and citation
	<p>process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.25.6	<p>Nitrogen Oxides: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents to STRU 24 is added, modified or replaced to measure emissions (lb/hr and lb/MMBtu).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.25.7	<p>Carbon Monoxide: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 24 is added, modified or replaced to measure emissions</p>

Requirement number	Requirement and citation
	<p>(lb/hr) and CO control efficiency.</p> <p>The performance test shall be conducted worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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. [CAAA of 1990, Minn. R. 7007.0100, subp. 7(B), Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: 40 CFR pt. 52, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.25.8	<p>Sulfur Dioxide: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to verify the emission factors of SO2 (lb/hr).</p> <p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA</p>

Requirement number	Requirement and citation
	<p>Reference Method 6C, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will not be reset based upon emission factor testing.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.25.9	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p>

Requirement number	Requirement and citation
	<p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.25.10	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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 with a Notice of Compliance letter.</p>

Requirement number	Requirement and citation
	<p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.25.11	<p>Particulate Matter: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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 with a Notice of Compliance letter.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
6.25.12	<p>Carbon Monoxide: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure emissions (lb/hr) and CO control efficiency.</p> <p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.25.13	Nitrogen Oxides: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure emissions (lb/hr and lb/MMBtu).

Requirement number	Requirement and citation
	<p>The first test is due by the date specified above. 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 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.25.14	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure VOC control efficiency and VOC as mass (lb/hr).</p> <p>The first test is due by the date specified above. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) letter with review</p>

Requirement number	Requirement and citation
	<p>of the initial performance test. Subsequent tests shall be completed no less than every 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 36 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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 37	Fermentation System Scrubber
6.26.1	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to measure VOC as mass (lb/hr) and VOC control efficiency under AOS 1 and AOS 2 operating scenarios.</p> <p>The first test is due by the date specified above. 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 36 months by</p>

Requirement number	Requirement and citation
	<p>the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. Subsequent tests shall be completed no less than every 36 months thereafter by the due date (month and day) and as described below.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 37.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.26.2	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 36 months thereafter to verify the emission factor of HAPs (lb/hr) at the outlet and HAP control efficiency under AOS 1 and AOS 2 operating scenarios.</p> <p>The first test is due by the date specified above. 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 thereafter concurrent with the VOC as mass testing conducted for STRU 37 no less than every 36 months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. As the VOC as mass performance test satisfies the HAPs - Single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match.</p> <p>If the Commissioner sets a test frequency at less than every 36 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major</p>

Requirement number	Requirement and citation
	<p>amendment is required to reduce the test frequency once set in the permit.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, and Methanol emission factors.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
6.26.3	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 37 is added, modified or replaced to verify HAP emission factors (lb/hr) at the outlet and HAP control efficiency under AOS 1 and AOS 2 operating scenarios.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due</p>

Requirement number	Requirement and citation
	<p>date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
6.26.4	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 37 is added, modified or replaced to measure VOC control efficiency and VOC as mass (lb/hr).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 37.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
STRU 38	Grain Handling Baghouse
6.27.1	<p>Particulate Matter: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow</p>

Requirement number	Requirement and citation
	<p>is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 38.</p> <p>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.</p> <p>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. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.27.2	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 38 is added, modified or replaced to (lb/hr) measure emissions. This requirement applies to the initial startup of EQUI 181. This requirement applies to the initial startup of EQUI 184.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 38.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.27.3	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any</p>

Requirement number	Requirement and citation
	<p>equipment that vents emissions to STRU 38 is added, modified or replaced to (lb/hr) measure emissions. This requirement applies to the initial startup of EQUI 181. This requirement applies to the initial startup of EQUI 184.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 38.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.27.4	<p>PM < 10 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 38.</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.27.5	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 38.</p> <p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 39	Grain Milling Baghouse
6.28.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 39 is added, modified or replaced to (lb/hr) measure emissions.</p>

Requirement number	Requirement and citation
	<p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 20.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.28.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 39 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 20.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due</p>

Requirement number	Requirement and citation
	<p>date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.28.3	<p>Particulate Matter: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 20.</p> <p>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.</p> <p>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. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.28.4	<p>PM < 10 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan</p>

Requirement number	Requirement and citation
	<p>approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 20.</p> <p>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.</p> <p>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. 1, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.28.5	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 20.</p> <p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0010-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
STRU 40	DDGS Loadout Baghouse
6.29.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 40 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 40.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.29.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 40 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 40.</p>

Requirement number	Requirement and citation
	<p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.29.3	<p>PM < 10 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (lb/hr).</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 40.</p> <p>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.</p> <p>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(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.29.4	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (lb/hr).</p>

Requirement number	Requirement and citation
	<p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 40.</p> <p>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.</p> <p>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.subp. 2, A(& B)), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.29.5	<p>Particulate Matter: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure emissions (lb/hr).</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at STRU 40.</p> <p>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.</p>

Requirement number	Requirement and citation
	<p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 43	Corn Flour Conveyance Aspiration
6.30.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 43 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at COMG 20.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 – 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.30.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 43 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA</p>

Requirement number	Requirement and citation
	<p>Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at COMG 20.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.30.3	<p>PM < 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput rates 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at COMG 20.</p>

Requirement number	Requirement and citation
	<p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.30.4	<p>PM < 2.5 micron: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at COMG 20.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>Testing conducted more than 60 days prior to the specified due date satisfies this test due date</p>

Requirement number	Requirement and citation
6.30.5	<p>requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p> <p>Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after Initial Startup Date and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at COMG 20.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 45	DDGS Storage Silo Fill Vent #1

Requirement number	Requirement and citation
6.31.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 45 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 45.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.31.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 45 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 45.</p>

Requirement number	Requirement and citation
	<p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.31.3	<p>Particulate Matter: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions (lb/hr).</p> <p>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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 45. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.31.4	<p>PM < 10 micron: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions (lb/hr).</p> <p>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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 45. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.31.5	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions (lb/hr).</p> <p>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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin</p>

Requirement number	Requirement and citation
	<p>venting to STRU 45. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 46	DDGS Cooling Cyclone
6.32.1	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to verify the emission factors of HAPs (lb/hr) at the outlet.</p> <p>The first test is due by the date specified above. 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 thereafter concurrent with the VOC as mass testing conducted for STRU 46 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. As the VOC as mass performance test satisfies the HAPs - Single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, and Methanol emission factors.</p> <p>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.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due</p>

Requirement number	Requirement and citation
6.32.2	<p>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: Avoid major source under 40 CFR 63.2]</p> <p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. 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. Subsequent tests shall be completed no less than every 60 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.32.3	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit</p>

Requirement number	Requirement and citation
	<p>Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. 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. Subsequent tests shall be completed no less than every 60 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.32.4	<p>Particulate Matter: : The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The first test is due by the date specified above. The Commissioner will set the subsequent test</p>

Requirement number	Requirement and citation
	<p>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. Subsequent tests shall be completed no less than every 60 months thereafter by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.32.5	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure VOC as mass (lb/hr).</p> <p>The first test is due by the date specified above. 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. Subsequent tests shall be completed no less than every 60 months thereafter by the</p>

Requirement number	Requirement and citation
	<p>due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.</p> <p>If the Commissioner sets a test frequency at less than every 360 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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 19.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 47	Distillation/Dryers/RTO
6.33.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 47 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term</p>

Requirement number	Requirement and citation
	<p>process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.33.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 47 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subps. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.33.3	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 47 is added, modified or replaced to verify HAP emission</p>

Requirement number	Requirement and citation
	<p>factors (lb/hr) at the outlet and inlet.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>
6.33.4	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 47 is added, modified or replaced to measure VOC control efficiency and VOC as mass (lb/hr).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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</p>

Requirement number	Requirement and citation
6.33.5	<p>date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p> <p>Nitrogen Oxides: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents to STRU 47 is added, modified or replaced to measure emissions (lb/hr and lb/MMBtu).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.33.6	<p>Carbon Monoxide: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 47 is added, modified or replaced to measure emissions (lb/hr).</p> <p>The performance test shall be conducted worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to</p>

Requirement number	Requirement and citation
	<p>the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.33.7	<p>Particulate Matter: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to measure emissions (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.8	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of</p>

Requirement number	Requirement and citation
	<p>Compliance issued after the third performance test in 2025 to measure emissions (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.9	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to measure emissions (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test at COMG 21.</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.10	<p>Nitrogen Oxides: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to measure emissions (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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, subps. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.11	<p>Carbon Monoxide: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of</p>

Requirement number	Requirement and citation
	<p>Compliance issued after the third performance test in 2025 to measure emissions (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval. This permit contains short-term process throughput limits. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.12	<p>Sulfur Dioxide: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to measure emission factors of SO2 (lb/hr). The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 6C, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will not be reset based upon emission factor testing.</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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(A), Minn. R. 7017.2020, subp. 1]</p>
6.33.13	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to measure emissions (lb/hr) and control efficiency. The first test is due by the date specified above and all subsequent tests shall be completed every 12 months thereafter by the due date (month and day) until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 and as described below.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.33.14	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after Permit Issuance and every 12 months thereafter until a new test frequency is set through a Notice of Compliance issued after the third performance test in 2025 to verify HAP emissions factors (lb/hr) at</p>

Requirement number	Requirement and citation
	<p>the inlet and outlet. The first test is due by the date specified above. Subsequent tests shall be completed thereafter concurrent with the VOC as mass testing conducted for STRU 47. As the VOC as mass performance test satisfies the HAPs - Single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane and Methanol emission factors.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>
STRU 49	CHP Dump Stack
6.34.1	<p>HAPs—Single: 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 (lb/hr) at the outlet.</p> <p>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.</p> <p>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.</p>

Requirement number	Requirement and citation
	<p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 63.2]</p>
6.34.2	<p>Sulfur Dioxide: The Permittee shall conduct an initial performance test due 180 calendar days after Permit Issuance and at a minimum every 60 months thereafter to verify the emission factors of SO₂ (lb/MMBtu and lb/hr).</p> <p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 6C, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p>

Requirement number	Requirement and citation
6.34.3	<p>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]</p> <p>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 (lb/hr).</p> <p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.34.4	<p>PM < 2.5 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 (lb/hr).</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.34.5	<p>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 (lb/hr).</p> <p>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.</p> <p>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.</p>

Requirement number	Requirement and citation
6.34.6	<p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p> <p>Carbon Monoxide: 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 (lb/hr).</p> <p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use with startup and/or shutdown, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p>

Requirement number	Requirement and citation
	<p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.34.7	<p>Nitrogen Oxides: 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 (lb/hr).</p> <p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 7E, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.34.8	<p>Volatile Organic Compounds: 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 VOC as mass (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use with startup and/or shutdown, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 52	Combined Turbine/Burner Stack
6.35.1	<p>Sulfur Dioxide: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to verify the emissions factors of AOS 1 emissions (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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at AOS 1, using EPA Reference Method 6C, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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. 11, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2020, subp. 1]</p>
6.35.2	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (lb/hr) and AOS 2 emissions (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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at AOS 1 and at AOS 2, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.35.3	<p>Carbon Monoxide: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (lb/hr) and AOS 2 emissions (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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at AOS 1 and at AOS 2, using EPA Reference Method 10, or other method approved by MPCA in the performance test plan approval. A table of performance test operating</p>

Requirement number	Requirement and citation
	<p>parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.35.4	<p>PM < 2.5 micron: The Permittee shall conduct an initial performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (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.</p> <p>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. The performance test shall be performed at AOS 1 as described at STRU 52, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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, subps. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.35.5	<p>Particulate Matter: The Permittee shall conduct an initial performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (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.</p> <p>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. The performance test</p>

Requirement number	Requirement and citation
	<p>shall be performed at AOS 1 as described at STRU 52, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.35.6	<p>PM < 10 micron: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (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.</p> <p>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. The performance test shall be performed at AOS 1 as described at STRU 52, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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, subps. 11, Minn. R. 7017.2020, subp. 1, Minn. R. 7017.2025, subp. 3(C), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.35.7	<p>HAPs - Single: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to verify AOS 1 HAP emission factors (lb/hr) at the outlet and AOS 2 HAP emission factors (lb/hr) at the outlet.</p> <p>The first test is due by the date specified above. Subsequent tests shall be completed thereafter</p>

Requirement number	Requirement and citation
	<p>concurrent with the VOC as mass testing conducted for STRU 52. As the VOC as mass performance test satisfies the HAPs - single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match.</p> <p>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. The performance test shall be performed at AOS 1 and AOS 2, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>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. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2]</p>
6.35.8	<p>Nitrogen Oxides: The Permittee shall conduct a performance test due before 9/13/2023 and every 60 months thereafter to measure AOS 1 emissions (lb/hr) and AOS 2 emissions (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.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed a AOS 1 and AOS 2, using EPA Reference Method 7E, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>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.</p> <p>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</p>

Requirement number	Requirement and citation
	<p>date.</p> <p>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.</p> <p>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.</p> <p>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 7E, or other method approved by MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 11, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 77	DDGS Loadout Leg Filter
6.36.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 77 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process</p>

Requirement number	Requirement and citation
	<p>Throughput Limits at STRU 77.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. {Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000}</p>
6.36.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 77 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 77.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. {Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000}</p>
6.36.3	<p>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 (lb/hr).</p>

Requirement number	Requirement and citation
	<p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.36.4	<p>PM < 2.5 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 (lb/hr).</p> <p>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.</p> <p>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.</p>

Requirement number	Requirement and citation
	<p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.subp. 0800, 2(A) & (B), Minn. R. 7009.0020-7009-0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.36.5	<p>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 (lb/hr).</p> <p>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.</p> <p>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.</p> <p>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. The performance test shall be performed at Bypass Use without startup and/or shutdown, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E.</p>

Requirement number	Requirement and citation
	<p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 78	Fluid Bed Cooler with Baghouse
6.37.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 78 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.37.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 78 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005,</p>

Requirement number	Requirement and citation
	<p>subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.37.3	<p>HAPs - Single: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 78 is added, modified or replaced to verify HAP emission factors (lb/hr) at the outlet and HAP control efficiency.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, Hexane, and Methanol emission factors.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>

Requirement number	Requirement and citation
6.37.4	<p>Volatile Organic Compounds: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 78 is added, modified or replaced to measure VOC control efficiency and VOC as mass (lb/hr).</p> <p>The performance test shall be conducted at worst-case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.37.5	<p>PM < 2.5 micron: The Permittee shall conduct an initial performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short-term process throughput limits 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.</p> <p>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.</p> <p>The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005,</p>

Requirement number	Requirement and citation
	<p>subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.37.6	<p>Particulate Matter: The Permittee shall conduct an initial performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short-term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term</p>

Requirement number	Requirement and citation
	<p>process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.37.7	<p>Volatile Organic Compounds: The Permittee shall conduct an initial performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure VOC as mass (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short-term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 25A in addition to Method 18 or Method 320, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p>

Requirement number	Requirement and citation
	<p>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 source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.37.8	<p>PM < 10 micron: The Permittee shall conduct an initial performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to measure emissions (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short-term process throughput rates 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short-term process throughput limits. Short-term process throughput limits will be reset according to the Protocol for Resetting Short-Term Process Throughput Limits at COMG 21.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>

Requirement number	Requirement and citation
6.37.9	<p>HAPs - Single: The Permittee shall conduct an initial performance test due 60 calendar days after Permit Issuance and at a minimum every 60 months thereafter to verify HAP emission factors (lb/hr) at the outlet.</p> <p>The first test is due by the date specified above. Subsequent tests shall be completed thereafter concurrent with the VOC as mass testing conducted for STRU 78. As the VOC as mass performance test satisfies the HAPs - single testing requirement, if the VOC testing frequency is reset via a Notice of Compliance/Notice of Verification letter, the HAP testing frequency shall be reset to match. 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. The performance test shall be performed at a short-term process throughput rate determined by the Permittee, using EPA Reference Method 18 or Method 320 or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters, test methods, and pollutants to test is contained in Appendix E. This permit contains short-term process throughput limits. At a minimum, the Permittee must test for Acetaldehyde, Acrolein, Formaldehyde, and Methanol.</p> <p>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.</p> <p>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: Avoid major source under 40 CFR 63.2]</p>
STRU 84	DDGS Storage Silo Fill Vent #3
6.38.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 84 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined 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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 84. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major</p>

Requirement number	Requirement and citation
6.38.2	<p>source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p> <p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 84 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined 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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 84. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.38.3	<p>PM < 10 micron: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions (lb/hr).</p> <p>The performance test shall be conducted at worst case conditions as 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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 84. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.38.4	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 180 calendar days after Permit Issuance Date to measure emissions (lb/hr).</p> <p>The performance test shall be conducted at worst case conditions as 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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 84. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
6.38.5	<p>Particulate Matter: The Permittee shall conduct a performance test due 180 calendar days after</p>

Requirement number	Requirement and citation
	<p>Permit Issuance Date to measure emissions (lb/hr).</p> <p>The performance test shall be conducted at worst case conditions as 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. 100% of the DDGS passing through the DDGS Fill Leg venting to STRU 45 must be sent to the DDGS Bin venting to STRU 84. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
STRU 85	DDGS Conveying
6.39.1	<p>PM < 10 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 85 is added, modified or replaced to (lb/hr) measure emissions.</p> <p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 85.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 – 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.39.2	<p>PM < 2.5 micron: The Permittee shall conduct a performance test due 60 calendar days after any equipment that vents emissions to STRU 85 is added, modified or replaced to (lb/hr) measure emissions.</p>

Requirement number	Requirement and citation
	<p>The performance test shall be conducted at worst case conditions as defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions defined at Minn. R. 7017.2025, subp. 2. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 85.</p> <p>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 with a Notice of Compliance letter.</p> <p>Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset the performance test due dates based on the performance test date. {Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020 - 7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000}</p>
6.39.3	<p>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 (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput rates 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow</p>

Requirement number	Requirement and citation
	<p>is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 85.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.39.4	<p>PM < 2.5 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 (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 85.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date</p>

Requirement number	Requirement and citation
	<p>for future testing.</p> <p>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. 7007.subp. 0800, 2(A) & (B), Minn. R. 7009.0020-7009-0090, Minn. R. 7017.2020, subp. 1, Minn. Stat. 116.07, subd. 4a(a), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]</p>
6.39.5	<p>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 (lb/hr).</p> <p>The Commissioner will set the subsequent test frequency and the short term process throughput limits 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.</p> <p>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.</p> <p>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. The performance test shall be performed at a short term process throughput rate determined by the Permittee, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. A table of performance test operating parameters to document and test methods to follow is contained in Appendix E. This permit contains short term process throughput limits. Short term process throughput limits will be reset according to the Protocol for Resetting Short Term Process Throughput Limits at STRU 85.</p> <p>Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing.</p> <p>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 source under 40 CFR</p>

Permit Issued: [month day, year]
Permit Expires: [month day, year]

Requirement number	Requirement and citation
	52.21(b)(1)(i) and Minn. R. 7007.3000]
TREA 25	RTO
6.40.1	The Permittee shall install, operate, and maintain a process O2 monitor in the combustion zone of TREA 25 : Due within 30 days of receipt of a Notice of Noncompliance (NON) for STRU 47. [Minn. R. 7007.0800, subp. 4, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
TREA 38	DDGS Storage Silo Fill Vent #3
6.41.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.41.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]

7. Appendices

Appendix A. Insignificant activities and general applicable requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D)	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(E)	Brazing, soldering, torch-cutting, or welding equipment	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(F)	Individual units with potential emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

03900028-102
 Page 348 of 613

Appendix B: Authorized Construction

SI ID	Type	Description	Manufacturer	Model Number	Max Design Capacity	Constructed	Startup
EQUI 181	Loading- Unloading Equipment	Dump Pit #3	MCCORMICK	RAIL PIT	950 bushels of grain	7/23/2017	
EQUI 184	Conveyor	Pit Conveyor #3	SCHLAGEL	3020	20,000 bushels of grain/hr	7/27/2017	
EQUI 249	Aboveground Storage Tank	Fuel additive / 3000 gal / TK014	TBD	TBD	3,000 gallons		
EQUI 281	Loading- Unloading Equipment	Loading Rack #5	WESTMOR FLUID SOLUTIONS	7320	1,200 gallons/min		
EQUI 282	Loading- Unloading Equipment	Loading Rack #6	WESTMOR FLUID SOLUTIONS	7320	1,200 gallons/min		
EQUI 290	Silo/Bin	DDGS Bin #3	TBD	TBD	750,000 bushels of DDGS		
EQUI 298	Conveyor	DDGS Silo Discharge Drag #3	TBD	TBD	15,000 bushels of DDGS		
EQUI 304	Silo/Bin	Grain Receiving Bin #3	TBD	TBD	75,000 bushels of grain		
EQUI 306	Conveyor	Grain Bin Fill Conveyor #3	TBD	TBD	40,000 bushels of grain/hr		
EQUI 307	Conveyor	Reclaim Conveyor #3	SCHLAGEL	1818	10,000 bushels of grain/hr		
EQUI 310	Material Handling Equipment	Whole Stillage Tank (T-5001)	TBD	TBD	150,000 gallons/each		
EQUI 351	Aboveground Storage Tank	IGE 60K Day Tank 1	TBD	TBD	60,000 gallons		
EQUI 352	Aboveground Storage Tank	IGE 60K Day Tank 2	TBD	TBD	60,000 gallons		
EQUI 368	Distillation Equipment	IGE Distillation Column C	TBD	TBD	19.0 gallons per minute		
TREA 38	018-Fabric Filter - Low Temp, T<180 Degrees F	DDGS Storage Silo Fill Vent #3	PM/PM10/PM2.5	100/100/100	96.3/85.4/16.2		

FUGI 13	17_0004	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.49	498643.7	4877149
FUGI 13	17_0005	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.41	498643.7	4877140
FUGI 13	17_0006	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.31	498643.7	4877130
FUGI 13	17_0007	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.22	498643.8	4877120
FUGI 13	17_0008	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.15	498643.8	4877111
FUGI 13	17_0009	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.08	498643.9	4877101
FUGI 13	17_0010	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.02	498643.9	4877091
FUGI 13	17_0011	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	389.96	498643.9	4877081
FUGI 13	17_0012	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	389.9	498644	4877072
FUGI 13	17_0013	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	389.87	498643.7	4877062
FUGI 13	17_0014	Haul Road Segment 17	1, 2	4.42E-05	4.42E-06	0	5.57E-06	5.57E-07	0	7.85	1.7	3.11	390.47	498634	4877062
FUGI 13	18_0001	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	392.28	498572.2	4877163
FUGI 13	18_0002	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	391.96	498572.2	4877153
FUGI 13	18_0003	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	391.79	498572.2	4877142
FUGI 13	18_0004	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	391.77	498572.2	4877132
FUGI 13	18_0005	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	392.11	498577.7	4877128
FUGI 13	18_0006	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	392.47	498587.8	4877128
FUGI 13	18_0007	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	392.84	498597.9	4877128
FUGI 13	18_0008	Haul Road Segment 18	1, 2	1.40E-03	1.40E-04	0	1.77E-04	1.77E-05	0	7.85	1.7	3.11	392.91	498608.1	4877127

*Grain Receiving - Uncaptured emissions (EQUI 223) and DDGS Loadout - Uncaptured emissions (EQUI 224) both occur in the same building. The building has four doors (i.e. Four modeled emission points).

Appendix D: Subject Item Data for Flexible Permitting

Description, Manufacturer and Model

Stack ID No.	Subject Item Id	TREA ID No.	Emission Unit Description	Manufacturer	Model
STRU 24	EQUI 12	TREA 6	Centrifuges	Alfa-Laval	CHNX-944B, NX944HS
STRU 24	EQUI 309	TREA 6	Thin Stillage Tank (T-501)	BMT	Custom
STRU 24	EQUI 312	TREA 6	Syrup Tank (T-620)	Westmor	Custom
STRU 24	EQUI 314	TREA 6	Oil Free Syrup Receiver Tank (T-5201)	Modern Welding Co. of Iowa	Custom
STRU 24	EQUI 315	TREA 6	Oil Centrifuge Feed Tank (T-5301)	Modern Welding Co. of Iowa	Custom
STRU 24	EQUI 316	TREA 6	Heavy Phase Tank (T-5310)	Modern Welding Co. of Iowa	Custom
STRU 24	EQUI 317	TREA 6	Centrate Tank #1	Custom	Custom
STRU 37	EQUI 174	TREA 16/ TREA 42	Fermenter #7	BROWN TANK	1080000 GAL.
STRU 37	EQUI 175	TREA 16/ TREA 42	Fermenter #8	BROWN TANK	1080000 GAL.
STRU 37	EQUI 176	TREA 16/ TREA 42	Fermenter #9	BROWN TANK	1080000 GAL.
STRU 37	EQUI 177	TREA 16/ TREA 42	Fermenter #10	BROWN TANK	1080000 GAL.
STRU 37	EQUI 178	TREA 16/ TREA 42	Beerwell	BROWN TANK	1080000 GAL.
STRU 37	EQUI 232	TREA 16/ TREA 42	Liquefaction Tank	WINBCO	NA
STRU 37	EQUI 233	TREA 16/ TREA 42	Slurry Tank	BROWN TANK	NA
STRU 37	EQUI 236	TREA 16/ TREA 42	Yeast Prop Tank	TBD	TBD
STRU 37	EQUI 237	TREA 16/ TREA 42	Yeast Prop Tank	TBD	TBD
STRU 37	EQUI 238	TREA 16/ TREA 42	Beer Stripper #3	THERMAL KINETICS	NA
STRU 37	EQUI 240	TREA 16/ TREA 42	Rectifier #3	THERMAL KINETICS	NA
STRU 37	EQUI 241	TREA 16/ TREA 42	Evaporators #3	THERMAL KINETICS	NA
STRU 37	EQUI 242	TREA 16/ TREA 42	Molecular Sieves #3	THERMAL KINETICS	NA
STRU 37	EQUI 310	TREA 16/ TREA 42	Whole Stillage Tank (T-5001)	TBD	TBD
STRU 37	EQUI 347	TREA 16/ TREA 42	IGE Molecular Sieve #4	Kennedy Tank & Manufacturing Company	Press-0030158 (V-6010), Press-0030402 (V-6020)
STRU 37	EQUI 31	TREA 16/ TREA 42	Fermenter #1	Wimbco	custom
STRU 37	EQUI 32	TREA 16/ TREA 42	Fermenter #2	Wimbco	custom
STRU 37	EQUI 33	TREA 16/ TREA 42	Fermenter #3	Wimbco	custom
STRU 37	EQUI 34	TREA 16/ TREA 42	Cook Water Tank	Wimbco	custom
STRU 37	EQUI 35	TREA 16/ TREA 42	Fermenter #4	Wimbco	custom
STRU 37	EQUI 36	TREA 16/ TREA 42	Fermenter #5	Wimbco	custom

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

STRU 37	EQUI 37	TREA 16/ TREA 42	Fermenter #6	BMT	custom
STRU 37	EQUI 42	TREA 16/ TREA 42	Molecular Sieve #2	ICM	custom
STRU 37	EQUI 43	TREA 16/ TREA 42	Evaporator #2	A&B Process Systems	custom
STRU 37	EQUI 44	TREA 16/ TREA 42	Rectifier #2	Westmor	custom
STRU 37	EQUI 45	TREA 16/ TREA 42	Beer Stripper #2	Westmor	custom
STRU 37	EQUI 46	TREA 16/ TREA 42	Side Stripper #2	Westmor	custom
STRU 37	EQUI 59	TREA 16/ TREA 42	Evaporator #1	Senior Engineering	custom
STRU 38	EQUI 182	TREA 17	Pit Conveyor #1	SCHLAGEL	3020
STRU 38	EQUI 183	TREA 17	Pit Conveyor #2	SCHLAGEL	3020
STRU 38	EQUI 184	TREA 17	Pit Conveyor #3	TBD	TBD
STRU 38	EQUI 185	TREA 17	Receiving Elevator Leg #1	SCHLAGEL	48208-2
STRU 38	EQUI 187	TREA 17	Receiving Transfer Conveyor #1	SCHLAGEL	3038
STRU 38	EQUI 188	TREA 17	Receiving Transfer Conveyor #2	SCHLAGEL	3038
STRU 38	EQUI 189	TREA 17	Bin Fill Conveyor	SCHLAGEL	3630
STRU 38	EQUI 190	TREA 17	Corn Bin #1	CHIEF	CB34
STRU 38	EQUI 191	TREA 17	Corn Bin #2	CHIEF	CB34
STRU 38	EQUI 304	TREA 17	Grain Receiving Bin #3	TBD	TBD
STRU 38	EQUI 305	TREA 17	Grain Bin Fill Conveyor #2	SCHLAGEL	3630
STRU 38	EQUI 306	TREA 17	Grain Bin Fill Conveyor #3	TBD	TBD
STRU 39	EQUI 192	TREA 18	Reclaim Conveyor #1	SCHLAGEL	1818
STRU 39	EQUI 193	TREA 18	Reclaim Conveyor #2	SCHLAGEL	1818
STRU 39	EQUI 194	TREA 18	Hammermill Feed Leg	SCHLAGEL	42168
STRU 39	EQUI 196	TREA 18	Scalper Surge Bin	MCCORMICK	NA
STRU 39	EQUI 197	TREA 18	Hammermill Surge Bin with 4 Rotary Feeders	MCCORMICK	NA
STRU 39	EQUI 198	TREA 18	Scalper #1	MITCHELL MILL	3696
STRU 39	EQUI 199	TREA 18	Scalper #2	MITCHELL MILL	3696
STRU 39	EQUI 200	TREA 18	Hammermill #1	CARTER DAY	4250
STRU 39	EQUI 201	TREA 18	Hammermill #2	CARTER DAY	4250
STRU 39	EQUI 202	TREA 18	Hammermill #3	CARTER DAY	4250
STRU 39	EQUI 203	TREA 18	Hammermill #4	CARTER DAY	4250
STRU 39	EQUI 204	TREA 18	Hammermill Collection	MCCORMICK	NA
STRU 39	EQUI 307	TREA 18	Reclaim Conveyor #3	SCHLAGEL	1818
STRU 40	EQUI 205	TREA 19	DDGS Bulkweigher	J&D CONSTRUCTION	15-M-7.5-3-60
STRU 40	EQUI 206	TREA 19	DDGS Conveyor #1	SCHLAGEL	2218
STRU 40	EQUI 207	TREA 19	DDGS Conveyor #2	SCHLAGEL	2218
STRU 40	EQUI 208	TREA 19	DDGS Dust Conveyance Cyclone	CAMCORP	SE17
STRU 43	EQUI 195	NA	Feed Conveyor #1	SCHLAGEL	NA

STRU 43	EQUI 292	NA	Feed Conveyor #2	Newell	Custom
STRU 43	EQUI 293	NA	Feed Conveyor #3	Newell	Custom
STRU 43	EQUI 294	NA	Feed Conveyor #4	Newell	Custom
STRU 43	EQUI 295	NA	Feed Conveyor #5	Conveyor Engineering	Custom
STRU 45	EQUI 214	TREA 23	DDGS Fill Leg	SCHLAGEL	36208
STRU 45	EQUI 215	TREA 23	DDGS Bin #1	MCCORMICK	NA
STRU 47	EQUI 231	TREA 25	Centrifuges	ALFA-LAVAL	SG-805
STRU 47	EQUI 309	TREA 25	Thin Stillage Tank (T-501)	BMT	Custom
STRU 47	EQUI 313	TREA 25	Syrup Tank (T-5305)	Modern Welding Co. of Iowa	Custom
STRU 47	EQUI 314	TREA 25	Oil Free Syrup Receiver Tank (T-5201)	Modern Welding Co. of Iowa	Custom
STRU 47	EQUI 315	TREA 25	Oil Centrifuge Feed Tank (T-5301)	Modern Welding Co. of Iowa	Custom
STRU 47	EQUI 318	TREA 25	Centrate Tank #2 (T-5110)	Modern Welding Co. of Iowa	Custom
STRU 48	EQUI 222	TREA 26	DDGS Bin #2	MCCORMICK	NA
STRU 77	EQUI 283	TREA 36	DDGS Loadout Leg	SCHLAGEL	36208
STRU 77	EQUI 296	TREA 36	DDGS Silo Discharge Drag #1	SCHLAGEL	2531
STRU 77	EQUI 297	TREA 36	DDGS Silo Discharge Drag #2	SCHLAGEL	2531
STRU 77	EQUI 298	TREA 36	DDGS Silo Discharge Drag #3	TBD	TBD
STRU 78	EQUI 219	TREA 37	Fluid Bed Cooler	VETTERTEC	NA
STRU 78	EQUI 284	TREA 37	DDGS Conveyor	Vettertec	Custom
STRU 84	EQUI 290	TREA 38	DDGS Bin #3	TBD	TBD
STRU 85	EQUI 291	TREA 39	DDGS Conveyor #1	Newell	Custom
STRU 85	EQUI 301	TREA 39	DDGS Conveyor #2	Newell	Custom
STRU 85	EQUI 302	TREA 39	DDGS Conveyor #3	Newell	Custom
STRU 85	EQUI 303	TREA 39	DDGS Conveyor #4	Newell	Custom

Capacities and Dates

Stack ID No.	Subject Item Id	Max Design Capacity	Material	Units Numerator	Units Denominator	Commence Construction Date	Initial Startup Date
STRU 24	EQUI 12	900	Material	gallons	minutes	7/1/2007	7/1/2007
STRU 24	EQUI 309	200000	Material	gallons	each	1/1/1995	4/1/1996
STRU 24	EQUI 312	52700	Material	gallons	each	4/1/2002	6/1/2002
STRU 24	EQUI 314	2000	Material	gallons	each	3/29/2017	4/16/2018
STRU 24	EQUI 315	37500	Material	gallons	each	3/29/2017	4/16/2018
STRU 24	EQUI 316	37500	Material	gallons	each	3/29/2017	4/16/2018
STRU 24	EQUI 317	1000	Material	gallons	each	1/1/1995	4/1/1996
STRU 37	EQUI 174	1080000	Beer	gallons	each	3/29/2017	4/11/2018
STRU 37	EQUI 175	1080000	Beer	gallons	each	3/29/2017	4/11/2018
STRU 37	EQUI 176	1080000	Beer	gallons	each	3/29/2017	4/11/2018
STRU 37	EQUI 177	1080000	Beer	gallons	each	12/4/2017	4/11/2018
STRU 37	EQUI 178	1080000	Beer	gallons	each	3/29/2017	10/18/2017

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

STRU 37	EQUI 232	300000	Beer	gallons	each	1/1/2016	2/1/2018
STRU 37	EQUI 233	50000	Water	gallons	each	3/27/2017	4/11/2018
STRU 37	EQUI 236	25000	Yeast	gallons	each	1/1/1996	1/1/1996
STRU 37	EQUI 237	25000	Yeast	gallons	each	1/1/1996	1/1/1996
STRU 37	EQUI 238	1300	Beer	gallons	minutes	7/27/2017	4/11/2018
STRU 37	EQUI 240	1300	Ethanol	gallons	minutes	7/27/2017	4/11/2018
STRU 37	EQUI 241	900	Ethanol	gallons	minutes	7/27/2017	4/11/2018
STRU 37	EQUI 242	250	Ethanol	gallons	minutes	7/29/2017	4/11/2018
STRU 37	EQUI 310	150000	Material	gallons	each	TBD	TBD
STRU 37	EQUI 347	38	Ethanol	gallons	minutes	9/1/2020	12/20/2020
STRU 37	EQUI 31	535000	Beer	gallons	each	5/2/2001	6/1/2001
STRU 37	EQUI 32	535000	Beer	gallons	each	5/2/2006	6/1/2006
STRU 37	EQUI 33	535000	Beer	gallons	each	7/1/2001	7/1/2001
STRU 37	EQUI 34	535000	Beer	gallons	each	5/1/2001	5/1/2002
STRU 37	EQUI 35	535000	Beer	gallons	each	8/1/2006	8/1/2006
STRU 37	EQUI 36	535000	Beer	gallons	each	8/1/2006	8/1/2006
STRU 37	EQUI 37	535000	Beer	gallons	each	1/1/2011	1/1/2011
STRU 37	EQUI 42	150	Ethanol	gallons	minutes	8/1/2006	8/1/2006
STRU 37	EQUI 43	900	Material	gallons	minutes	8/1/2006	8/1/2006
STRU 37	EQUI 44	700	Ethanol	gallons	minutes	8/1/2006	8/1/2006
STRU 37	EQUI 45	700	Beer	gallons	minutes	8/1/2006	8/1/2006
STRU 37	EQUI 46	700	Ethanol	gallons	minutes	8/1/2006	8/1/2006
STRU 37	EQUI 59	900	Material	gallons	minutes	5/2/1995	4/1/1996
STRU 38	EQUI 182	20000	Grain	bushels	hours	7/27/2017	4/12/2018
STRU 38	EQUI 183	20000	Grain	bushels	hours	7/27/2017	4/12/2018
STRU 38	EQUI 184	20000	Grain	bushels	hours	TBD	TBD
STRU 38	EQUI 185	40000	Grain	bushels	hours	8/10/2017	4/12/2018
STRU 38	EQUI 187	20000	Grain	bushels	hours	7/27/2017	4/12/2018
STRU 38	EQUI 188	20000	Grain	bushels	hours	7/27/2017	4/12/2018
STRU 38	EQUI 189	40000	Grain	bushels	hours	9/6/2017	4/12/2018
STRU 38	EQUI 190	750000	Grain	bushels	each	7/24/2017	4/12/2018
STRU 38	EQUI 191	750000	Grain	bushels	each	7/24/2017	4/12/2018
STRU 38	EQUI 304	75000	Grain	bushels	each	TBD	TBD
STRU 38	EQUI 305	40000	Grain	bushels	hours	9/6/2017	4/12/2018
STRU 38	EQUI 306	40000	Grain	bushels	hours	TBD	TBD
STRU 39	EQUI 192	10000	Grain	bushels	hours	8/28/2017	4/12/2018
STRU 39	EQUI 193	10000	Grain	bushels	hours	8/28/2017	4/12/2018
STRU 39	EQUI 194	10000	Grain	bushels	hours	8/28/2017	4/12/2018
STRU 39	EQUI 196	10000	Grain	bushels	hours	8/28/2017	4/12/2018
STRU 39	EQUI 197	10000	Grain	bushels	hours	5/2/2017	4/12/2018

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

STRU 39	EQUI 198	3000	Grain	bushels	hours	9/29/2017	4/12/2018
STRU 39	EQUI 199	3000	Grain	bushels	hours	9/29/2017	4/12/2018
STRU 39	EQUI 200	1500	Grain	bushels	hours	8/18/2017	4/12/2018
STRU 39	EQUI 201	1500	Grain	bushels	hours	8/18/2017	4/12/2018
STRU 39	EQUI 202	1500	Grain	bushels	hours	8/18/2017	4/12/2018
STRU 39	EQUI 203	1500	Grain	bushels	hours	8/18/2017	4/12/2018
STRU 39	EQUI 204	6000	Grain	bushels	hours	8/31/2017	4/12/2018
STRU 39	EQUI 307	10000	Grain	bushels	hours	TBD	TBD
STRU 40	EQUI 205	15000	Distillers Dried Grains With Solids	bushels	hours	7/13/2017	4/12/2018
STRU 40	EQUI 206	15000	Distillers Dried Grains With Solids	bushels	hours	10/17/2017	4/12/2018
STRU 40	EQUI 207	15000	Distillers Dried Grains With Solids	bushels	hours	10/17/2017	4/12/2018
STRU 40	EQUI 208	4.7	Distillers Dried Grains With Solids	tons	hours	9/29/2017	4/12/2018
STRU 43	EQUI 195	5322	Grain	bushels	hours	10/17/2017	TBD
STRU 43	EQUI 292	5322	Corn	bushels	hours	10/1/2017	4/12/2018
STRU 43	EQUI 293	5322	Corn	bushels	hours	10/1/2017	4/12/2018
STRU 43	EQUI 294	5322	Corn	bushels	hours	10/1/2017	4/12/2018
STRU 43	EQUI 295	5322	Corn	bushels	hours	10/1/2017	4/12/2018
STRU 45	EQUI 214	7,500	Distillers Dried Grains With Solids	bushels	hours	10/18/2017	4/11/2018
		140*	Distillers Dried Grains With Solids	tons	hours		
STRU 45	EQUI 215	7,500	Distillers Dried Grains With Solids	bushels	hours	5/2/2017	4/12/2018
		140*	Distillers Dried Grains With Solids	tons	hours		
STRU 47	EQUI 231	1760	Material	gallons	minutes	10/20/2017	4/11/2018
STRU 47	EQUI 309	200000	Material	gallons	each	1/1/1995	4/1/1996
STRU 47	EQUI 313	26000	Material	gallons	each	3/29/2017	4/16/2018
STRU 47	EQUI 314	2000	Material	gallons	each	3/29/2017	4/16/2018
STRU 47	EQUI 315	37500	Material	gallons	each	3/29/2017	4/16/2018
STRU 47	EQUI 318	4500	Material	gallons	each	3/29/2017	4/16/2018
STRU 48	EQUI 222	7,500	Distillers Dried Grains With Solids	bushels	hours	5/2/2017	4/12/2018
		140*	Distillers Dried Grains With Solids	tons	hours		
STRU 77	EQUI 296	15000	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 77	EQUI 297	15000	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 77	EQUI 298	15000	Distillers Dried Grains With Solids	bushels	hours	TBD	TBD
STRU 77	EQUI 283	15000	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 78	EQUI 284	15000	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 84	EQUI 290	7500	Distillers Dried Grains With Solids	bushels	each	TBD	TBD

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

		140*	Distillers Dried Grains With Solids	tons	hours		
STRU 85	EQUI 291	7500	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 85	EQUI 301	7500	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 85	EQUI 302	7500	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018
STRU 85	EQUI 303	7500	Distillers Dried Grains With Solids	bushels	hours	10/1/2017	4/12/2018

* bushels of DDGS/hr converted to tons/hr using the following conversion factors: (30 lb of DDGS/cf of DDGS)*(1.24 cf of DDGS/bu of DDGS)*(1 ton of DDGS/2000 lb of DDGS)

Control Equipment Subject Item Details

TREA ID No.	Subject Item Type	Manufacturer	Model	Pollutants controlled	Capture Efficiency	Destruction Efficiency
TREA 16	050-Packed-Gas Absorption Column	Termal Kinetics	Custom	Acetaldehyde - AOS 1	100	98
				Acetaldehyde - AOS 2	100	50
				Acrolein - AOS 1	100	95
				Acrolein - AOS 2	100	95
				Formaldehyde - AOS 1	100	95
				Formaldehyde - AOS 2	100	95
				Methanol - AOS 1	100	96
				Methanol - AOS 2	100	96
				Volatile Organic Compounds - AOS 1	100	99.4
				Volatile Organic Compounds - AOS 2	100	99.64
TREA 17*	018-Fabric Filter - Low Temp, T<180 Degrees F	CamCorp	NA	Particulate Matter	100	99.6
				PM < 2.5 micron	100	95.6
				PM < 10 micron	100	99.2
TREA 18	018-Fabric Filter - Low Temp, T<180 Degrees F	CamCorp	NA	Particulate Matter	100	99.4
				PM < 2.5 micron	100	99.3
				PM < 10 micron	100	99.3
TREA 19*	018-Fabric Filter - Low Temp, T<180 Degrees F	CamCorp	NA	Particulate Matter	100	97.7
				PM < 2.5 micron	100	76
				PM < 10 micron	100	82.4
TREA 23	018-Fabric Filter - Low Temp, T<180 Degrees F	CamCorp	NA	Particulate Matter	100	98.9
				PM < 2.5 micron	100	86.6
				PM < 10 micron	100	97.7
TREA 26	018-Fabric Filter - Low Temp, T<180 Degrees F	CamCorp	NA	Particulate Matter	100	96.3
				PM < 2.5 micron	100	16.2
				PM < 10 micron	100	85.4
TREA 36	018-Fabric Filter - Low	Schenk Process	TBD	Particulate Matter	100	99.9

	Temp, T<180 Degrees F			PM < 10 micron	100	99.9
				PM < 2.5 micron	100	99.2
TREA 37	018-Fabric Filter - Low Temp, T<180 Degrees F	Schenk Process	TBD	Particulate Matter	100	97
				PM < 10 micron	100	94
				PM < 2.5 micron	100	93.8
TREA 38	018-Fabric Filter - Low Temp, T<180 Degrees F	TBD	TBD	Particulate Matter	100	96.3
				PM < 10 micron	100	85.4
				PM < 2.5 micron	100	16.2
TREA 39	018-Fabric Filter - Low Temp, T<180 Degrees F	Schenk Process	TBD	Particulate Matter	100	99.7
				PM < 10 micron	100	98.8
				PM < 2.5 micron	100	93

*TREA 17 and TREA 19 aspirate from operations that do not all have 100% capture (grain receiving and DDGS loadout). Emissions from receiving and loadout operations are separated into two equipment numbers, one which represents the captured portion of generated emissions, and one which represents the uncaptured portion of generated emissions. TREA 17 and TREA 19 are subject to hood capture and evaluation requirements.

Appendix E: Performance Test Summary and Stack Test Methods

Table E1: Performance Test Parameter Summary

Subject Item	Description	Process Flow Parameters	Control Equipment Operating Parameters
COMG 2- see individual group members (EQUI 60, EQUI 61 and EQUI 62)			
EQUI 60 *	Dryer #1 (Dryer B) Load Generator	Engine load (% of peak)	TREA 28 >= 450 and <= 1350 degrees F TREA 28 >= 6.26 in. wc and <= 10.26 in. wc
EQUI 61 *	Process Generator	Engine load (% of peak)	TREA 30 >= 450 and <= 1350 degrees F TREA 30 >= 5.34 in. wc and <= 9.34 in. wc
EQUI 62 *	Cooling Tower Generator	Engine load (% of peak)	TREA 29 >= 450 and <= 1350 degrees F TREA 29 >= 7.53 in. wc and <= 11.53 in. wc
STRU 24 and STRU 46 (COMG 19)	TO/HRSG and DDGS Cooling Cyclone (DDGS Drying and Cooling)	Syrup feed rate (gal/min): first compliant performance test of STRU 24 conducted 60 days after Permit Issuance (replaces dryer input rate in tons per hour as calculated for the September 13, 2018 performance test and dryer output rate in tons per hour as calculated for the November 14, 2018 performance test); Sum of parametric monitors FT-505-1 (EQUI 321) and FT-720-1 (EQUI 322) from syrup tank (EQUI 312) to dryers (EQUI 54 and EQUI 47); Maximum Achievable Process Rate: first compliant performance test of STRU 24 conducted 60 days after Permit Issuance Centrifuge feed rate (gal/min): first compliant performance test of STRU 24 conducted 60 days after Permit Issuance (replaces dryer input rate in tons per hour as calculated for the September 13, 2018 performance test and dryer output rate in tons per hour as calculated for the November 14, 2018 performance test); Sum of parametric monitors FT-601-1 (EQUI 323), FT-602-1 (EQUI 324), FT-603-1 (EQUI 325) and FT-604-1 (EQUI 326) from centrifuge (EQUI 12) to dryers (EQUI 54 and EQUI 47); Maximum Achievable Process Rate: first compliant performance test of STRU 24 conducted 60 days after Permit Issuance	STRU 24: TREA 6 >= 1477 deg F; STRU 46: NA
STRU 37	Fermentation System Scrubber	AOS 1 & AOS 2 - Liquefaction flow rate (gal/min): first compliant performance test of STRU 37 conducted 60 days after Permit Issuance; Parametric monitor FT-2310-1 (EQUI 327) from liquefaction tank (EQUI 232) to fermenters (EQUIs 31, 32, 33, 35, 36, 37, 174, 175, 176, 177); Maximum Achievable Process Rate: first compliant performance test performed 60 days after Permit Issuance	AOS 1 & AOS 2 - TREA 16 >= 2.0 in. wc and <= 18.0 in. wc
		AOS 1 & AOS 2 - Beer output (gal/min); Parametric monitor FT-132001-1 (EQUI 328) from beerwell (EQUI 178) to beer strippers (EQUI 45 and EQUI 238); Maximum Achievable Process Rate: first compliant performance test performed 60 days after Permit Issuance	AOS 1 - Fermentation System Scrubber (TREA 16) operates at normal (not reduced) water flow rate and normal (not reduced) scrubber additive liquid flow rate as defined below. Water flow rate >= 53.5 gal/min Liquid (additive) flow rate >= 110.6 mL/min
		AOS 1 & AOS 2 - TREA 16 Pressure drop (inches of water column)	
		AOS 1 & AOS 2 - TREA 42 Condenser condensate flow rate > 0.0 gal/min	
		AOS 1 & AOS 2 - TREA 42 condenser water flow rate >= 45.0 gal/min	AOS 2 - Fermentation System Scrubber (TREA 16) operates at a reduced water flow rate and reduced scrubber additive liquid flow rate as defined below. Water flow rate >= 45.0 gal/min Liquid (additive) flow rate >= 0.0 mL/min
		AOS 1 & AOS 2 - TREA 42 Inlet Gas Temperature	
		AOS 1 & AOS 2 - TREA 42 Outlet Gas Temperature	
STRU 38	Grain Handling Baghouse	Grain throughput (tons/hr); Grain receipts; Maximum Achievable Process Rate: 1,120 tons/hr maximum	TREA 17 >= 0.5 in. wc and <= 8.0 in. wc

STRU 39 and STRU 43 (COMG 20)	Grain Milling Baghouse and Corn Flour Conveyance Aspiration (Grain Milling and Flour Conveyance)	Grain input (tons/hr); Sum of parametric monitors ST-1321 (EQUI 331), ST-1322 (EQUI 332), ST-1323 (EQUI 333), and ST-1324 (EQUI 334) from hammermill surge bin (EQUI 197) to hammermills (EQUIs 200, 201, 202, 203) Maximum Achievable Process Rate: compliant performance test performed before 9/13/2023	STRU 39: TREA 18 >= 0.5 in. wc and <= 8.0 in. wc; STRU 43: TREA 21 >= 0.5 in. wc and <= 8.0 in. wc
STRU 40	DDGS Loadout Baghouse	DDGS throughput (tons/hr); DDGS loadout receipts; Maximum Achievable Process Rate: 280 tons/hr maximum	TREA 19 >= 0.5 in. wc and <= 8.0 in. wc
STRU 47 and STRU 78 (COMG 21)	Distillation/ Dryers/RTO and Fluid Bed Cooler with Baghouse (Distillation Drying and Cooling)	Syrup feed rate (gal/min): first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance (replaces dryer input rate in tons per hour as calculated for the December 12, 2019 performance test); Parametric monitor FT-5305-1 (EQUI 336) from syrup tank (EQUI 313) to dryer (EQUI 218) Maximum Achievable Process Rate: first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance Centrifuge feed rate (gal/min): first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance (replaces dryer input rate in tons per hour as calculated for the December 12, 2019 performance test); Sum of parametric monitors FT-5105-1 (EQUI 337), FT-5106-1 (EQUI 338) and FT-5107-1 (EQUI 339) from centrifuge (EQUI 231) to dryer (EQUI 218); Maximum Achievable Process Rate: first compliant performance test of STRU 47 and STRU 78 conducted 60 days after Permit Issuance	STRU 47: TREA 25 >= 1500 deg F; STRU 47: TREA 25 excess oxygen (%) required within 30 days of receipt of NON (see TREA 25); STRU 78: TREA 37 >= 0.5 in. wc and <= 10.5 in. wc
STRU 52	Combined Turbine/ Burner/Boiler Stack	AOS 1 - Normal Operation: EQUI 226 is throttled to operate at a maximum rate of 139 MMBtu/hr. EQUI 225 operates at a maximum rate of 68 MMBtu/hr (physical capacity) AOS 2 - Combustion Turbine Maintenance: Duct burner (EQUI 226) operates without the combustion turbine (EQUI 225) at a maximum rate of 178 MMBtu/hr (physical capacity). AOS 3 - Independent Combustion Turbine Operation: Combustion turbine (EQUI 225) operates without the duct burner (EQUI 226). EQUI 225 operates at high load (80% or greater of the maximum rated capacity of 68 MMBtu/hr).	NA
STRU 77	DDGS Loadout Leg Filter	DDGS loadout (tons/hr); DDGS loadout receipts; Maximum Achievable Process Rate: compliant performance test performed 180 days after Permit Issuance Date	TREA 36 >= 0.5 in. wc and <= 8.0 in. wc
STRU 84	DDGS Storage Silo Fill Vent #3	DDGS (tons/hr); Maximum design capacity: 140 tons/hr	TREA 38 >= 0.5 in. wc and <= 8.0 in. wc
STRU 85	DDGS Conveying	DDGS loadout (tons/hr); DDGS loadout receipts; Maximum Achievable Process Rate: compliant performance test performed 180 days after Permit Issuance Date	TREA 39 >= 0.5 in. wc and <= 8.0 in. wc

*COMG 2 parameters are listed by group member (EQUI 60, 61 and 62)

Table E2: EPA Performance Test Methods

Subject Item	Description	Pollutants Tested and Test Method (unless alternative method is approved by MPCA is the performance test plan approval) When conducting tests for VOC as mass using Method 18 or 320 (or approved equivalent), the Permittee must test for the following compounds at a minimum: acetaldehyde, acetic acid, acrolein, ethanol, ethyl acetate, formaldehyde, isoamyl alcohol and methanol. Additional chemicals may be required by the MPCA Performance Test Coordinator. Hexane and acetaldehyde may be required for combustion HAPs.
EQUI 60 *	Dryer #1 (Dryer B) Load Generator	CO: Method 10
EQUI 61 *	Process Generator	CO: Method 10
EQUI 62 *	Cooling Tower Generator	CO: Method 10
STRU 24	TO/HRSG	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202 Single HAP (acetaldehyde, acrolein, formaldehyde, methanol, hexane): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320 SO ₂ : Method 6C NO _x : Method 7E CO: Method 10
STRU 37	Fermentation System Scrubber	Single HAP (acetaldehyde, acrolein, formaldehyde, methanol): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320
STRU 38	Grain Handling Baghouse	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 39	Grain Milling Baghouse	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 40	DDGS Loadout Baghouse	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 43	Corn Flour Conveyance Aspiration	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 or Methods 5 and 202 PM _{2.5} : Methods 201A and 202 or Methods 5 and 202
STRU 45	DDGS Storage Silo Fill Vent #1	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 or Methods 5 and 202 PM _{2.5} : Methods 201A and 202 or Methods 5 and 202
STRU 46	DDGS Cooling Cyclone	Single HAP (acetaldehyde, acrolein, formaldehyde, methanol): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320 PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 47	Distillation/ Dryers/RTO	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202 CO: Method 10 NO _x : Method 7E SO ₂ : Method 6C Single HAP (acetaldehyde, acrolein, formaldehyde, methanol, hexane): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320
STRU 49		PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202 Single HAP (acetaldehyde, acrolein, formaldehyde, methanol, hexane): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320 SO ₂ : Method 6C NO _x : Method 7E CO: Method 10
STRU 52	Combined Turbine/ Burner/Boiler Stack	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

		Single HAP (acetaldehyde, acrolein, formaldehyde, methanol, hexane): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320 SO ₂ : Method 6C NO _x : Method 7E CO: Method 10
STRU 77	DDGS Loadout Leg Filter	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 78	Fluid Bed Cooler with Baghouse	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202 Single HAP (acetaldehyde, acrolein, formaldehyde, methanol): Method 18 or 320 VOC total mass: Method 25A in addition to Method 18 or 320
STRU 84	DDGS Storage Silo Fill Vent #3	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202
STRU 85	DDGS Conveying	PM: Methods 5 and 202 PM ₁₀ : Methods 201A and 202 PM _{2.5} : Methods 201A and 202

Appendix F: General Public Preclusion Plan

General Public Preclusion Plan (GPPP)

In accordance with Section 5.1.66 of MPCA Air Permit #03900028-101, Al-Corn Clean Fuels, LLC (Al-Corn) has adopted the following Plan and procedures to preclude unauthorized public access from the Al-Corn facility in Claremont, Minnesota. In general, Al-Corn utilizes a combination of fencing/signage, regular personnel rounds, and security camera coverage (in order of priority) to provide overall security to the facility.

The Al-Corn facility is partially enclosed by a combination of chain-link and aluminum rail fencing along the northeast and eastern property boundaries as shown in the attached drawing. The remainder of the facility is unfenced due to over-arching fire/rail safety concerns which require ready egress in the event of a derailment or other rail-related incident along the loop track.

Unfenced facility boundaries are secured with a combination of existing PTZ security cameras monitoring ingress and egress routes and augmented with "No Trespassing" signage along the unfenced perimeter. As specified by our Air Permit, "No Trespassing" signs are posted approximately every 1,000 feet.

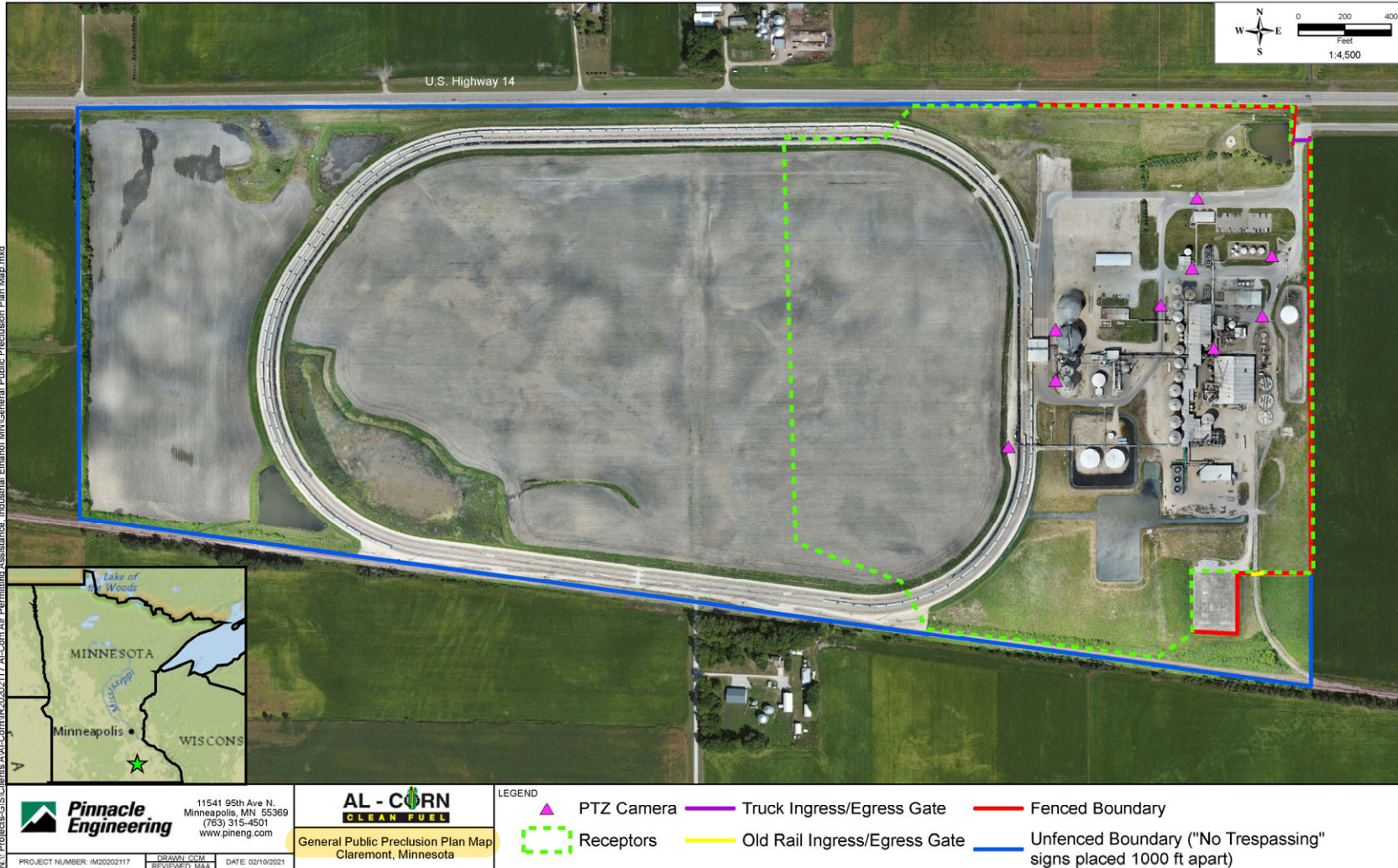
Additionally, Al-Corn employees receive annual training which includes site security guidance and directives from a variety of perspectives, including SPCC, NPDES, DHS, FRSA, FSMA and DOT. As a part of this training, Employees are directed to identify/approach any unknown persons spotted within the facility boundaries and determine if they are authorized to be onsite. In the event that unauthorized persons are found onsite, Al-Corn management is notified immediately and the unauthorized persons are escorted off-site. If the unauthorized party refuses to leave the site, Al-Corn contacts 911 and requests law-enforcement assistance.

Al-Corn personnel are regularly conducting rounds (approximately every 4 hours) that encompass remote locations of the facility. This and the above training are considered a second line of defense (after fencing and signage). Security cameras are generally utilized to augment the regular employee rounds and during times of reduced facility activities.

If security cameras are down for maintenance or out due to an extended outage, Al-Corn personnel are already conducting regularly scheduled facility rounds to view the areas that are being augmented by the security cameras. Any necessary security camera maintenance is provided by a third party for Al-Corn. If there are any camera issues, Al-Corn will call and utilize this third party to correct or the issue or replace the camera.

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

03900028-102
 Page 368 of 613



N:\Projects\GIS\Clients\AL\Com\IR20202117_AL\Com_Air_Permitting_Assistance_Industrial_Ethanol_MN\General_Public_Preclusion_Plan_Map.mxd

Pinnacle Engineering
 11541 95th Ave N.
 Minneapolis, MN 55369
 (763) 315-4501
 www.pineng.com

AL - CORN CLEAN FUEL
 General Public Preclusion Plan Map
 Claremont, Minnesota

LEGEND

- ▲ PTZ Camera
- Truck Ingress/Egress Gate
- Fenced Boundary
- Receptors
- Old Rail Ingress/Egress Gate
- Unfenced Boundary ("No Trespassing" signs placed 1000 ft apart)

PROJECT NUMBER: IM20202117 DRAWN: GCM DATE: 02/10/2021
 REVIEWED: MAA

Permit Issued: [month day, year]
Permit Expires: [month day, year]

03900028-102
Page 369 of 613

Permit no. 03900028-101, Section 5.1.66:

The Permittee shall install and maintain fencing around the facility. In areas where fencing is not permissible by setbacks, right-of-ways, safety concerns, or clearances, the Permittee shall install and maintain signs every 1,000 feet. The signs must state "No Trespassing," in 2 inch-high letters, and have the signature or name and telephone number of the landowner, lessee, or manager. In addition to signage, the Permittee shall install and maintain cameras or conduct patrols to sufficiently restrict public access to the property outlined as described in the dispersion modeling.

Permit Issued: [month day, year]
Permit Expires: [month day, year]

03900028-102
Page 370 of 613

Appendix G: Fugitive Dust Control Plan

Fugitive Dust Control Plan

Al-Corn Clean Fuel

Revision C

October 2016

Rev C.

October 2016

Table of Contents

- 1.0 Introduction
- 2.0 Plan Objectives
- 3.0 Fugitive Emissions Sources
 - 3.1 Unpaved Roads
 - 3.2 Paved Roads
 - 3.3 Material Transfer Points
- 4.0 Operating Practices and Control Measures
 - 4.1 Unpaved Roads
 - 4.2 Paved Roads
 - 4.3 Material Transfer Points
- 5.0 Record Keeping

1.0 Introduction

Al-Corn Clean Fuel has created this BMP to comply with its air permit. The plan is intended to specify how Al-Corn intends to control fugitive dust emissions from the facility site located at 797 5th Street, in Claremont, Minnesota.

2.0 Plan Objectives

The Fugitive Control Plan identifies Al-Corn's control measures and practices to minimize and control fugitive dust as required by the state air permit. The plan defines the following

- Procedures that Al-Corn personnel will follow to control emissions
- Fugitive dust levels requiring corrective actions
- Steps that will be followed to bring emissions within appropriate ranges
- Steps that Al-Corn will take to demonstrate that corrective procedures are followed and to verify the facility is controlling avoidable fugitive emissions

To meet these objectives, the Fugitive Control Plan:

- Identifies the primary and contingent control measures and practices to control and minimize fugitive emissions.
- Identifies visible emissions observation and corrective action requirements
- Identifies fugitive dust control notification requirements

3.0 Fugitive Emissions Sources

3.1 Unpaved Roads

Al-Corn has a few unpaved roads where there is extremely low traffic. These unpaved areas are near the plant buildings and equipment so it is normally very low speed traffic.

3.2 Paved Roads

Paved road emissions occur on the road where trucks travel across the scale and to the corn receiving, DDG, ethanol, and corn oil loading areas. These roads are included in the emission inventory and traffic is figured based on production rates and typical truck loading rates.

3.3 Material Transfer Points

Corn Receiving

DDG Loadout

Ethanol and Corn Oil loading should have no dust beyond that created by the truck traffic accounted for under paved roads.

4.0 Operating Practices and Control Measures

The operating practices and control measures that will be implemented and recorded for the fugitive dust sources identified in section 3 are described below.

4.1 Unpaved Roads

Primary Controls: Traffic limited to very few vehicles travelling at low speeds.

4.2 Paved Roads

Primary Controls: Weekly inspection and sweeping and/or washing as needed.

Contingent Controls: Increased application of primary controls.

Practices: The operating practices of AI-Corn will include, but are not limited to inspecting the paved roads weekly, and sweeping or washing of the paved roads as needed to prevent fugitive emissions.

Recordkeeping: AI-Corn will maintain the following records onsite:

- Paved Road Inspection: Includes the date of the inspection, whether fugitive dust was observed, what corrective actions were taken, when the corrective actions were taken, and whether the corrective actions eliminated the fugitive dust.

4.3 Material Transfer Points

4.3.1 Corn Receiving

Primary Controls: Dust collection via grain receiving baghouse, and sweeping of the area around the corn receiving pit.

Contingent Controls: None

4.3.2 DDG Loadout

Primary Controls: Dust collection on the DDG Loadout system, and sweeping of the area around the DDG Loadout.

Contingent Controls: None

Permit Issued: [month day, year]
Permit Expires: [month day, year]

03900028-102
Page 376 of 613

5.0 Recordkeeping

The following records will be maintained at Al-Corn for the period specified by the air permit:

- Dust collection bag house differential pressure readings
- Dust collection bag house discharge visible emission checks
- Paved Road Inspection logs

Permit Issued: [month day, year]
Permit Expires: [month day, year]

03900028-102
Page 377 of 613

Revision History:

Revision B. 6/2016

Updated plan to add inspection frequency.

Added revision history.

Revision C. 10/2016

Updated plan to include specific elements required for the Paved Road Inspection log.

Rev C.

October 2016

Appendix H: Maximum Contents of Denaturant

The table below lists maximum HAP contents as percent by weight for specified tanks and loadout subject items at the time of permit issuance. These are worst case assumptions. Changing to a denaturant that has a higher HAP content is considered a change in method of operation and must be evaluated under Minn. R.7007.1200, subp.3, to determine if a permit amendment or notification is required.

Location	Denaturant Storage Tanks	In-line Blending, Denatured Ethanol Loadout	
Subject Item	EQUI 85, EQUI 86, EQUI 248	EQUI 319, STRU 10, STRU 36	EQUI 355, EQUI 356
Maximum percent by weight of Methanol	0.00%	0.01%	0.01%
Maximum percent by weight of Acetaldehyde	0.00%	0.05%	0.05%
Maximum percent by weight of Formaldehyde	0.00%	0.00%	0.00%
Maximum percent by weight of Hexane	26.45%	0.66%	0.00%
Maximum percent by weight of Total HAPs	33.90%	0.90%	0.06%
Maximum percent by weight of Denaturant	NA	2.49%	---

Appendix I. 40 CFR Part 60, Subpart A—General Provisions

§60.1 Applicability.

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.*

(1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

§60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the

Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

§60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m³—cubic meter

mg—milligram—10⁻³ gram

mm—millimeter—10⁻³ meter

Mg—megagram—10⁶ gram

mol—mole

N—newton

ng—nanogram—10⁻⁹ gram

nm—nanometer—10⁻⁹ meter

Pa—pascal

s—second

V—volt

W—watt

Ω—ohm

μg—microgram—10⁻⁶ gram

(b) Other units of measure:

Btu—British thermal unit

°C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

°F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter
lpm—liter per minute
lb—pound
meq—milliequivalent
min—minute
ml—milliliter
mol. wt.—molecular weight
ppb—parts per billion
ppm—parts per million
psia—pounds per square inch absolute
psig—pounds per square inch gage
°R—degree Rankine
scf—cubic feet at standard conditions
scfh—cubic feet per hour at standard conditions
scm—cubic meter at standard conditions
sec—second
sq ft—square feet
std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide
CO—carbon monoxide
CO₂—carbon dioxide
HCl—hydrochloric acid
Hg—mercury
H₂O—water
H₂S—hydrogen sulfide
H₂SO₄—sulfuric acid
N₂—nitrogen
NO—nitric oxide
NO₂—nitrogen dioxide
NO_x—nitrogen oxides
O₂—oxygen
SO₂—sulfur dioxide

SO₃—sulfur trioxide

SO_x—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

§60.4 Address.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Ecosystem Protection, U.S. Environmental Protection Agency, 5 Post Office Square—Suite 100, Boston, MA 02109-3912.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, 61 Forsyth St. SW., Suite 9T43, Atlanta, Georgia 30303-8960.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Air, Pesticides, and Toxics Division; U.S. Environmental Protection Agency, 1445 Ross Avenue, Dallas, TX 75202.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

Region IX (Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101.

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska, Department of Environmental Conservation, Pouch O, Juneau, AK 99811.

(4) Arizona:

Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 1001 North Central Avenue, Suite 900, Phoenix, AZ 85004.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Control District, 31 North Pinal Street, Building F, Florence, AZ 85132.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador County Air Pollution Control District, 12200-B Airport Road, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 43301 Division Street, Suite 206, Lancaster, CA 93535.

Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109.

Butte County Air Quality Management District, 2525 Dominic Drive, Suite J, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A-3, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 2850 Fairlane Court, Bldg. C, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 1007 Live Oak Blvd., Suite B-3, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N. Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Suite 6, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2801.

Lake County Air Quality Management District, 885 Lakeport Blvd., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 707 Nevada Street, Suite 1, Susanville, CA 96130.

Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E. Gobbi Street, Ukiah, CA 95482-5511.

Modoc County Air Pollution Control District, 619 North Main Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 2300 Myrtle Avenue, Eureka, CA 95501-3327.
Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, P.O. Box 2509, Grass Valley, CA 95945-2509.
Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.
Placer County Air Pollution Control District, 3091 County Center Drive, Suite 240, Auburn, CA 95603.
Sacramento Metropolitan Air Quality Management District, 777 12th Street, Third Floor, Sacramento, CA 95814-1908.
San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.
San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg, Fresno, CA 93726.
San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.
Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.
Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.
Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.
South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.
Tehama County Air Pollution Control District, P.O. Box 8069 (1750 Walnut Street), Red Bluff, CA 96080-0038.
Tuolumne County Air Pollution Control District, 22365 Airport, Columbia, CA 95310.
Ventura County Air Pollution Control District, 669 County Square Drive, 2nd Floor, Ventura, CA 93003-5417.
Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95616-4882.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(7) State of Colorado, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80222-1530.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(8) State of Connecticut, Bureau of Air Management, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, CT 06106.

(9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.

(12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 919 Ala Moana Blvd., Suite 203, Honolulu, HI 96814.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(14) State of Idaho, Department of Health and Welfare, Statehouse, Boise, ID 83701.

(15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.

(16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.

(18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.

(19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division for Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave., Suite 303, Louisville, Kentucky 40203.

(20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.

NOTE: For a list of delegated standards for Louisiana (excluding Indian country), see paragraph (e)(2) of this section.

(21) State of Maine, Bureau of Air Quality Control, Department of Environmental Protection, State House, Station No. 17, Augusta, ME 04333.

(22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.

(23) Commonwealth of Massachusetts, Division of Air Quality Control, Department of Environmental Protection, One Winter Street, 7th floor, Boston, MA 02108.

(24) State of Michigan: Michigan Department of Natural Resources and Environment, Air Quality Division, P.O. Box 30028, Lansing, Michigan 48909.

(25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.

(26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.

(27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.

(28) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(29) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.

Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502

(30) Nevada:

Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

Clark County Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Washoe County Health District, Air Quality Management Division, 1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89520.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(31) State of New Hampshire, Air Resources Division, Department of Environmental Services, 64 North Main Street, Caller Box 2033, Concord, NH 03302-2033.

(32) State of New Jersey: New Jersey Department of Environmental Protection, Division of Environmental Quality, Enforcement Element, John Fitch Plaza, CN-027, Trenton, NJ 08625.

(1) The following table lists the specific source and pollutant categories that have been delegated to the states in Region II. The (X) symbol is used to indicate each category that has been delegated.

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
D	Fossil-Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971 (Steam Generators and Lignite Fired Steam Generators)	X	X	X	X
Da	Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978	X		X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
H	Sulfuric Acid Plants	X	X	X	X
I	Asphalt Concrete Plants	X	X	X	X
J	Petroleum Refineries—(All Categories)	X	X	X	X
K	Storage Vessels for Petroleum Liquids Constructed After June 11, 1973, and prior to May 19, 1978	X	X	X	X

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
Ka	Storage Vessels for Petroleum Liquids Constructed After May 18, 1978	X	X	X	
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Ingot Production Plants	X	X	X	X
N	Iron and Steel Plants	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate	X	X	X	X
Y	Coal Preparation Plants	X	X	X	X
Z	Ferroally Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces	X	X	X	X
AAa	Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Plants	X	X	X	
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	
DD	Grain Elevators	X	X	X	
EE	Surface Coating of Metal Furniture	X	X	X	
GG	Stationary Gas Turbines	X	X	X	
HH	Lime Plants	X	X	X	
KK	Lead Acid Battery Manufacturing Plants	X	X		
LL	Metallic Mineral Processing Plants	X	X	X	

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
MM	Automobile and Light-Duty Truck Surface Coating Operations	X	X		
NN	Phosphate Rock Plants	X	X		
PP	Ammonium Sulfate Manufacturing Plants	X	X		
QQ	Graphic Art Industry Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of Volatile Organic Compounds in Synthetic Organic Chemical Manufacturing Industry	X		X	
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals	X	X	X	
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		X	
HHH	Synthetic Fiber Production Facilities	X		X	
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing Plants				
LLL	Onshore Natural Gas Processing Plants; SO ₂ Emissions		X		
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	

(33) State of New Mexico: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. Note: For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (e)(1) of this section.

(i) Albuquerque-Bernalillo County Air Quality Control Board, c/o Environmental Health Department, P.O. Box 1293, Albuquerque, New Mexico 87103.

(ii) [Reserved]

(34) New York: New York State Department of Environmental Conservation, 50 Wolf Road Albany, New York 12233, attention: Division of Air Resources.

(35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

(36) State of North Dakota, Division of Air Quality, North Dakota Department of Health, P.O. Box 5520, Bismarck, ND 58506-5520.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(37) State of Ohio:

(i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.

(ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.

(iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

(iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.

(v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.

(vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.

(vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.

(viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

(ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.

(x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.

(xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.

(xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.

(xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.

(xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.

(38) State of Oklahoma, Oklahoma State Department of Health, Air Quality Service, P.O. Box 53551, Oklahoma City, OK 73152.

(i) Oklahoma City and County: Director, Oklahoma City-County Health Department, 921 Northeast 23rd Street, Oklahoma City, OK 73105.

(ii) Tulsa County: Tulsa City-County Health Department, 4616 East Fifteenth Street, Tulsa, OK 74112.

(39) State of Oregon. (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Avenue, Portland, OR 97204-1390, <http://www.deq.state.or.us>.

(ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.

(40)(i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.

(ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

(iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.

(41) State of Rhode Island, Division of Air and Hazardous Materials, Department of Environmental Management, 291 Promenade Street, Providence, RI 02908.

(42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201.

(43) State of South Dakota, Air Quality Program, Department of Environment and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson Avenue, Memphis, Tennessee 38105.

(45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114-4820.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(47) State of Vermont, Air Pollution Control Division, Agency of Natural Resources, Building 3 South, 103 South Main Street, Waterbury, VT 05676.

(48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
OOO Nonmetallic Mineral Processing Plants			X		X		X	
PPP Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X	X	X	X	X
QQQ VOC Emissions from Petroleum Refinery Wastewater Systems	X	X	X	X	X	X	X	X
RRR VOCs from Synthetic Organic Chemical Manufacturing Industry Reactor Processes	X	X	X	X	X	X	X	X
SSS Magnetic Tape Coating Facilities	X	X	X	X	X	X	X	X
TTT Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X	X	X	X	X
UUU Calciners and Dryers in Mineral Industries	X	X	X	X	X	X	X	X
VVV Polymeric Coating of Supporting Substrates Facilities	X	X	X	X	X	X	X	X
WWW Municipal Solid Waste Landfills	X	X	X	X	X	X	X	X
AAAA Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001	X	X		X	X	X		X
BBBB Small Municipal Waste Combustion Units Constructed on or before August 30, 1999 (Emission Guidelines and Compliance Times)								
CCCC Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November, 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001	X	X		X	X	X		X
DDDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)								

¹Any authority within any subpart of this part that is not delegable, is not delegated. Please refer to Attachment B to the delegation letters for a listing of the NSPS authorities excluded from delegation.

²Washington State Department of Ecology, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

³Benton Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁴Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.

⁵Olympic Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁶Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.

⁷Spokane County Air Pollution Control Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁸Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.

⁹Yakima Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

¹⁰Subpart S of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Primary Aluminum Plants, pursuant to Washington Administrative Code 173-415-010.

¹¹Subpart BB of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Kraft and Sulfite Pulping Mills, pursuant to Washington State Administrative Code 173-405-012 and 173-410-012.

(50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.

(52) State of Wyoming, Department of Environmental Quality, Air Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, WY 82002.

NOTE: For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, PR 00910, Attention: Air Quality Area Director (see table under §60.4(b)(FF)(1)).

(55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, VI 00801.

(56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

NOTE: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The delegation status table for New Source Performance Standards for Region VIII can be found online at <http://www2.epa.gov/region8/air-program>.

(d) The following tables list the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§60.4(b), 60.8(b), 60.9, 60.11(b), 60.11(e), 60.13(a), 60.13(d)(2), 60.13(g), 60.13(i).

(1) *Arizona*. The following table identifies delegations for Arizona:

Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	X
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	X	
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X	X	
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X	X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is	X	X	X	X

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
	Commenced After June 11, 1973				
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
Ga	Nitric Acid Plants for which Construction, Reconstruction or Modification Commenced after October 14, 2011		X		
GG	Stationary Gas Turbines	X	X	X	X

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	X	
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals	X	X	X	X
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical	X	X	X	X

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
	Manufacturing Industry (SOCMI) Air Oxidation Unit Processes				
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	X
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X	
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
KKKK	Stationary Combustion Turbines	X	X	X	
LLLL	New Sewage Sludge Incineration Units			X	
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	X			
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X	X	
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces		X	X	
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X		

(2) *California*. The following tables identify delegations for each of the local air pollution control agencies of California.

(i) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
A	General Provisions		X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators		X	X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is		X		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
	Commenced After June 20, 1996				
F	Portland Cement Plants		X	X	
G	Nitric Acid Plants		X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant		X	X	
I	Hot Mix Asphalt Facilities		X	X	
J	Petroleum Refineries		X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	X	
L	Secondary Lead Smelters		X	X	
M	Secondary Brass and Bronze Production Plants		X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	X	
O	Sewage Treatment Plants		X	X	
P	Primary Copper Smelters		X	X	
Q	Primary Zinc Smelters		X	X	
R	Primary Lead Smelters		X	X	
S	Primary Aluminum Reduction Plants		X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	X	
Y	Coal Preparation and Processing Plants		X	X	
Z	Ferroalloy Production Facilities		X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	X	
BB	Kraft Pulp Mills		X	X	
CC	Glass Manufacturing Plants		X	X	
DD	Grain Elevators		X	X	
EE	Surface Coating of Metal Furniture		X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines		X	X	
HH	Lime Manufacturing Plants		X	X	
KK	Lead-Acid Battery Manufacturing Plants		X	X	
LL	Metallic Mineral Processing Plants		X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	X	
NN	Phosphate Rock Plants		X	X	
PP	Ammonium Sulfate Manufacture		X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	X	
SS	Industrial Surface Coating: Large Appliances		X	X	
TT	Metal Coil Surface Coating		X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	X	

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry		X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities		X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners		X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X		
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	X	
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	
WWW	Municipal Solid Waste Landfills		X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X		
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKKK	Stationary Combustion Turbines		X		
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ii) [Reserved]

(iii) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units		X		X
Dc	Small Industrial Steam Generating Units		X		X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X		X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X		X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X		X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture		X		X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
KK	Lead-Acid Battery Manufacturing Plants		X		X
LL	Metallic Mineral Processing Plants		X		X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants		X		X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X		X
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X		X
SS	Industrial Surface Coating: Large Appliances		X		X
TT	Metal Coil Surface Coating		X		X
UU	Asphalt Processing and Asphalt Roofing Manufacture		X		X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry		X		X
WW	Beverage Can Surface Coating Industry		X		X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters		X		X
BBB	Rubber Tire Manufacturing Industry		X		X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X		X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X		X
GGG	Equipment Leaks of VOC in Petroleum Refineries		X		X
HHH	Synthetic Fiber Production Facilities		X		X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		X
JJJ	Petroleum Dry Cleaners		X		X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X		X

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
LLL	Onshore Natural Gas Processing: SO2 Emissions				X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X		X
OOO	Nonmetallic Mineral Processing Plants		X		X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X		X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities		X		X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X		X
VVV	Polymeric Coating of Supporting Substrates Facilities		X		X
WWW	Municipal Solid Waste Landfills				X

(iv) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
A	General Provisions	X			X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X			X

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X			X
Db	Industrial-Commercial-Institutional Steam Generating Units	X			
Dc	Small Industrial Steam Generating Units	X			X
E	Incinerators	X			X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X			X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants	X			X
G	Nitric Acid Plants	X			X
H	Sulfuric Acid Plants	X			X
I	Hot Mix Asphalt Facilities	X			X
J	Petroleum Refineries	X			X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X			X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X			X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X			X
L	Secondary Lead Smelters	X			X
M	Secondary Brass and Bronze Production Plants	X			X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X			X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X			X

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
O	Sewage Treatment Plants	X			X
P	Primary Copper Smelters	X			X
Q	Primary Zinc Smelters	X			X
R	Primary Lead Smelters	X			X
S	Primary Aluminum Reduction Plants	X			X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X			X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X			X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X			X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X			X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X			X
Y	Coal Preparation Plants	X			X
Z	Ferroalloy Production Facilities	X			X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X			X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X			X
BB	Kraft Pulp Mills	X			X
CC	Glass Manufacturing Plants	X			X
DD	Grain Elevators	X			X
EE	Surface Coating of Metal Furniture	X			X
FF	(Reserved)				
GG	Stationary Gas Turbines	X			X
HH	Lime Manufacturing Plants	X			X
KK	Lead-Acid Battery Manufacturing Plants	X			X
LL	Metallic Mineral Processing Plants	X			X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X			X

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
NN	Phosphate Rock Plants	X			X
PP	Ammonium Sulfate Manufacture	X			X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X			X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X			X
SS	Industrial Surface Coating: Large Appliances	X			X
TT	Metal Coil Surface Coating	X			X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X			X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X			X
WW	Beverage Can Surface Coating Industry	X			X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters	X			X
BBB	Rubber Tire Manufacturing Industry	X			X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X			X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X			X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X			X
HHH	Synthetic Fiber Production Facilities	X			X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X			X
JJJ	Petroleum Dry Cleaners	X			X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X			X
LLL	Onshore Natural Gas Processing: SO2 Emissions	X			X
MMM	(Reserved)				

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X			X
OOO	Nonmetallic Mineral Processing Plants	X			X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X			X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X			X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X			
SSS	Magnetic Tape Coating Facilities	X			X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				
UUU	Calciners and Dryers in Mineral Industries	X			X
VVV	Polymeric Coating of Supporting Substrates Facilities	X			X
WWW	Municipal Solid Waste Landfills	X			

(v) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District and North Coast Unified Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	X
WWW	Municipal Solid Waste Landfills		X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X		
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKKK	Stationary Combustion Turbines		X		
LLLL	New Sewage Sludge Incineration Units				

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
0000	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(vi) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units				X
Dc	Small Industrial Steam Generating Units				X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994				X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				X
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		X
I	Hot Mix Asphalt Facilities		X		X

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984				X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983				X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983				X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture				X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants				X
LL	Metallic Mineral Processing Plants				X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants				X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing				X
RR	Pressure Sensitive Tape and Label Surface Coating Operations				X
SS	Industrial Surface Coating: Large Appliances				X
TT	Metal Coil Surface Coating				X
UU	Asphalt Processing and Asphalt Roofing Manufacture				X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry				X
WW	Beverage Can Surface Coating Industry				X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters				X
BBB	Rubber Tire Manufacturing Industry				X

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry				X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing				X
GGG	Equipment Leaks of VOC in Petroleum Refineries				X
HHH	Synthetic Fiber Production Facilities				X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes				X
JJJ	Petroleum Dry Cleaners				X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants				X
LLL	Onshore Natural Gas Processing: SO2 Emissions				X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations				X
OOO	Nonmetallic Mineral Processing Plants				X
PPP	Wool Fiberglass Insulation Manufacturing Plants				X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems				X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities				X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				X
UUU	Calciners and Dryers in Mineral Industries				X
VVV	Polymeric Coating of Supporting Substrates Facilities				X
WWW	Municipal Solid Waste Landfills				X

(vii) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X		X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X			X
F	Portland Cement Plants	X	X	X	
G	Nitric Acid Plants	X	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007				X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and	X	X	X	X

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
	Prior to May 19, 1978				
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	
Q	Primary Zinc Smelters	X	X	X	
R	Primary Lead Smelters	X	X	X	
S	Primary Aluminum Reduction Plants	X	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	
Y	Coal Preparation and Processing Plants	X	X	X	
Z	Ferroalloy Production Facilities	X	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization	X	X	X	

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
	Vessels Constructed After August 7, 1983				
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	
NN	Phosphate Rock Plants	X	X	X	
PP	Ammonium Sulfate Manufacture	X	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006				X
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X		
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006				X
HHH	Synthetic Fiber Production Facilities	X	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X		
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X		
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	
UUU	Calciners and Dryers in Mineral Industries	X	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
WWW	Municipal Solid Waste Landfills	X	X	X	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X			X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X			X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X			X
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines				X
JJJJ	Stationary Spark Ignition Internal Combustion Engines				X
KKKK	Stationary Combustion Turbines	X			X
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(viii) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
A	General Provisions	X	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X		X	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978			X	
Db	Industrial-Commercial-Institutional Steam Generating Units			X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units			X	
E	Incinerators	X		X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994			X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			X	
F	Portland Cement Plants	X		X	
G	Nitric Acid Plants	X		X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X		X	
I	Hot Mix Asphalt Facilities	X		X	
J	Petroleum Refineries	X		X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X		X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984			X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984			X	
L	Secondary Lead Smelters	X		X	
M	Secondary Brass and Bronze Production Plants	X		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		X	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983			X	
O	Sewage Treatment Plants	X		X	
P	Primary Copper Smelters	X		X	
Q	Primary Zinc Smelters	X		X	
R	Primary Lead Smelters	X		X	
S	Primary Aluminum Reduction Plants	X		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		X	
Y	Coal Preparation and Processing Plants	X		X	
Z	Ferroalloy Production Facilities	X		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X		X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983			X	
BB	Kraft Pulp Mills	X		X	
CC	Glass Manufacturing Plants			X	
DD	Grain Elevators	X		X	
EE	Surface Coating of Metal Furniture			X	
FF	(Reserved)				
GG	Stationary Gas Turbines			X	
HH	Lime Manufacturing Plants	X		X	
KK	Lead-Acid Battery Manufacturing Plants			X	
LL	Metallic Mineral Processing Plants			X	

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
MM	Automobile and Light Duty Trucks Surface Coating Operations			X	
NN	Phosphate Rock Plants			X	
PP	Ammonium Sulfate Manufacture			X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing			X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations			X	
SS	Industrial Surface Coating: Large Appliances			X	
TT	Metal Coil Surface Coating			X	
UU	Asphalt Processing and Asphalt Roofing Manufacture			X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing			X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006			X	
WW	Beverage Can Surface Coating Industry			X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry			X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing			X	
GGG	Equipment Leaks of VOC in Petroleum Refineries			X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			X	
HHH	Synthetic Fiber Production Facilities			X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes			X	
JJJ	Petroleum Dry Cleaners			X	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants			X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions			X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations			X	
OOO	Nonmetallic Mineral Processing Plants			X	
PPP	Wool Fiberglass Insulation Manufacturing Plants			X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes			X	
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries			X	
VVV	Polymeric Coating of Supporting Substrates Facilities			X	
WWW	Municipal Solid Waste Landfills			X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001			X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			X	
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines			X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines			X	
KKKK	Stationary Combustion Turbines			X	

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
LLLL	New Sewage Sludge Incineration Units				
O000	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ix) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
A	General Provisions	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X		
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial Steam Generating Units	X		
E	Incinerators	X		
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X		
F	Portland Cement Plants	X		
G	Nitric Acid Plants	X		
H	Sulfuric Acid Plants	X		
I	Hot Mix Asphalt Facilities	X	X	
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification			

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
	Commenced After May 14, 2007			
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X		
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X		
L	Secondary Lead Smelters	X		
M	Secondary Brass and Bronze Production Plants	X		
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X		
O	Sewage Treatment Plants	X		
P	Primary Copper Smelters	X		
Q	Primary Zinc Smelters	X		
R	Primary Lead Smelters	X		
S	Primary Aluminum Reduction Plants	X		
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		
Y	Coal Preparation Plants	X		
Z	Ferroalloy Production Facilities	X		
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels	X		

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
	Constructed After August 7, 1983			
BB	Kraft pulp Mills	X		
CC	Glass Manufacturing Plants	X		
DD	Grain Elevators	X		
EE	Surface Coating of Metal Furniture	X		
FF	(Reserved)			
GG	Stationary Gas Turbines	X		
HH	Lime Manufacturing Plants	X		
KK	Lead-Acid Battery Manufacturing Plants	X		
LL	Metallic Mineral Processing Plants	X		
MM	Automobile and Light Duty Trucks Surface Coating Operations	X		
NN	Phosphate Rock Plants	X		
PP	Ammonium Sulfate Manufacture	X		
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X		
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X		
SS	Industrial Surface Coating: Large Appliances	X		
TT	Metal Coil Surface Coating	X		
UU	Asphalt Processing and Asphalt Roofing Manufacture	X		
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X		
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
WW	Beverage Can Surface Coating Industry	X		
XX	Bulk Gasoline Terminals			
AAA	New Residential Wood Heaters	X		
BBB	Rubber Tire Manufacturing Industry	X		
CCC	(Reserved)			

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X		
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X		
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
HHH	Synthetic Fiber Production Facilities	X		
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X		
JJJ	Petroleum Dry Cleaners	X		
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X		
LLL	Onshore Natural Gas Processing: SO2 Emissions	X		
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X		
OOO	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X		
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X		
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X		
SSS	Magnetic Tape Coating Facilities	X		
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X		
UUU	Calciners and Dryers in Mineral Industries	X		
VVV	Polymeric Coating of Supporting Substrates Facilities	X		
WWW	Municipal Solid Waste Landfills	X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X		

	Subpart	Air Pollution Control Agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			
GGGG	(Reserved)			
IIII	Stationary Compression Ignition Internal Combustion Engines			
JJJJ	Stationary Spark Ignition Internal Combustion Engines			
KKKK	Stationary Combustion Turbines			

(3) *Hawaii*. The following table identifies delegations for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii:

	Subpart	Hawaii
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X
Dc	Small Industrial Steam Generating Units	X
E	Incinerators	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Hawaii
J	Petroleum Refineries	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X
L	Secondary Lead Smelters	
M	Secondary Brass and Bronze Production Plants	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	
O	Sewage Treatment Plants	X
P	Primary Copper Smelters	
Q	Primary Zinc Smelters	
R	Primary Lead Smelters	
S	Primary Aluminum Reduction Plants	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	
Y	Coal Preparation Plants	X
Z	Ferroalloy Production Facilities	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X
BB	Kraft pulp Mills	
CC	Glass Manufacturing Plants	
DD	Grain Elevators	

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Hawaii
EE	Surface Coating of Metal Furniture	
FF	(Reserved)	
GG	Stationary Gas Turbines	X
HH	Lime Manufacturing Plants	
KK	Lead-Acid Battery Manufacturing Plants	
LL	Metallic Mineral Processing Plants	
MM	Automobile and Light Duty Trucks Surface Coating Operations	
NN	Phosphate Rock Plants	
PP	Ammonium Sulfate Manufacture	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	
SS	Industrial Surface Coating: Large Appliances	
TT	Metal Coil Surface Coating	
UU	Asphalt Processing and Asphalt Roofing Manufacture	
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
WW	Beverage Can Surface Coating Industry	X
XX	Bulk Gasoline Terminals	X
AAA	New Residential Wool Heaters	
BBB	Rubber Tire Manufacturing Industry	
CCC	(Reserved)	
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	
EEE	(Reserved)	
FFF	Flexible Vinyl and Urethane Coating and Printing	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
HHH	Synthetic Fiber Production Facilities	

	Subpart	Hawaii
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	
JJJ	Petroleum Dry Cleaners	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	
LLL	Onshore Natural Gas Processing: SO2 Emissions	
MMM	(Reserved)	
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X
OOO	Nonmetallic Mineral Processing Plants	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	
QQQ	VOC Emissions From Petroleum Refinery Wastewater	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	
SSS	Magnetic Tape Coating Facilities	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	
UUU	Calciners and Dryers in Mineral Industries	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X
WWW	Municipal Solid Waste Landfills	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	
GGGG	(Reserved)	
IIII	Stationary Compression Ignition Internal Combustion Engines	
JJJJ	Stationary Spark Ignition Internal Combustion Engines	
KKKK	Stationary Combustion Turbines	

(4) Nevada. The following table identifies delegations for Nevada:

Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
A	General Provisions	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	
E	Incinerators	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	
F	Portland Cement Plants	X	X	X
G	Nitric Acid Plants	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011	X		
H	Sulfuric Acid Plant	X	X	
I	Hot Mix Asphalt Facilities	X	X	X
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	
O	Sewage Treatment Plants	X	X	X
P	Primary Copper Smelters	X	X	X
Q	Primary Zinc Smelters	X	X	X
R	Primary Lead Smelters	X	X	X
S	Primary Aluminum Reduction Plants	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	
Y	Coal Preparation and Processing Plants	X	X	X
Z	Ferroalloy Production Facilities	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	
BB	Kraft Pulp Mills	X	X	
CC	Glass Manufacturing Plants	X	X	
DD	Grain Elevators	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X
FF	(Reserved)			
GG	Stationary Gas Turbines	X	X	X
HH	Lime Manufacturing Plants	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
LL	Metallic Mineral Processing Plants	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X
NN	Phosphate Rock Plants	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X
TT	Metal Coil Surface Coating	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	
WW	Beverage Can Surface Coating Industry	X	X	
XX	Bulk Gasoline Terminals	X	X	
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry	X	X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	
JJJ	Petroleum Dry Cleaners	X	X	X

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X
GGGG	(Reserved)			
HHHH	(Reserved)			
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X	X	X
KKKK	Stationary Combustion Turbines	X	X	X
LLLL	New Sewage Sludge Incineration Units		X	
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution	X		

(5) *Guam*. The following table identifies delegations as of June 15, 2001:

Delegation Status for New Source Performance Standards for Guam

	Subpart	Guam
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	
Db	Industrial-Commercial-Institutional Steam Generating Units	
Dc	Small Industrial Steam Generating Units	
E	Incinerators	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	
Eb	Municipal Waste Combustors Constructed After September 20, 1994	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X

(e) The following lists the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(1) *New Mexico*. The New Mexico Environment Department has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters; and subpart HHHH—Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units, as amended in the FEDERAL REGISTER through September 23, 2013.

(2) *Louisiana*. The Louisiana Department of Environmental Quality has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters, as amended in the FEDERAL REGISTER through July 1, 2013.

[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
A	General Provisions	Yes
Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	Yes
D	Fossil Fueled Steam Generators (>250 MM BTU/hr)	Yes
Da	Electric Utility Steam Generating Units (>250 MM BTU/hr)	Yes
Db	Industrial-Commercial-Institutional Steam Generating Units (100 to 250 MM BTU/hr)	Yes
Dc	Industrial-Commercial-Institutional Small Steam Generating Units (10 to 100 MM BTU/hr)	Yes
E	Incinerators (>50 tons per day)	Yes
Ea	Municipal Waste Combustors	Yes
Eb	Large Municipal Waste Combustors	Yes
Ec	Hospital/Medical/Infectious Waste Incinerators	Yes
F	Portland Cement Plants	Yes
G	Nitric Acid Plants	Yes
Ga	Nitric Acid Plants (after October 14, 2011)	Yes
H	Sulfuric Acid Plants	Yes
I	Hot Mix Asphalt Facilities	Yes
J	Petroleum Refineries	Yes
Ja	Petroleum Refineries (After May 14, 2007)	Yes
K	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Ka	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Stg/Vessels) After 7/23/84	Yes
L	Secondary Lead Smelters Yes	Yes
M	Secondary Brass and Bronze Production Plants	Yes
N	Primary Emissions from Basic Oxygen Process Furnaces (Construction Commenced After June 11, 1973)	Yes
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities Construction is Commenced After January 20, 1983	Yes
O	Sewage Treatment Plants	Yes
P	Primary Copper Smelters	Yes
Q	Primary Zinc Smelters	Yes

Subpart	Source category	LDEQ ¹
R	Primary Lead Smelters	Yes
S	Primary Aluminum Reduction Plants	Yes
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Plants	Yes
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	Yes
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	Yes
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	Yes
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	Yes
Y	Coal Preparation Plants	Yes
Z	Ferroalloy Production Facilities	Yes
AA	Steel Plants: Electric Arc Furnaces After 10/21/74 & On or Before 8/17/83	Yes
AAa	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels After 8/07/83	Yes
BB	Kraft Pulp Mills	Yes
CC	Glass Manufacturing Plants	Yes
DD	Grain Elevators	Yes
EE	Surface Coating of Metal Furniture	Yes
GG	Stationary Gas Turbines	Yes
HH	Lime Manufacturing Plants	Yes
KK	Lead-Acid Battery Manufacturing Plants	Yes
LL	Metallic Mineral Processing Plants	Yes
MM	Automobile & Light Duty Truck Surface Coating Operations	Yes
NN	Phosphate Manufacturing Plants	Yes
PP	Ammonium Sulfate Manufacture	Yes
QQ	Graphic Arts Industry: Publication Rotogravure Printing	Yes
RR	Pressure Sensitive Tape and Label Surface Coating Operations	Yes
SS	Industrial Surface Coating: Large Appliances	Yes
TT	Metal Coil Surface Coating	Yes
UU	Asphalt Processing and Asphalt Roofing Manufacture	Yes
VV	VOC Equipment Leaks in the SOCM I Industry	Yes

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

Subpart	Source category	LDEQ ¹
VVa	VOC Equipment Leaks in the SOCOMI Industry (After November 7, 2006)	Yes
XX	Bulk Gasoline Terminals	Yes
AAA	New Residential Wood Heaters	No
BBB	Rubber Tire Manufacturing Industry	Yes
DDD	Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry	Yes
FFF	Flexible Vinyl and Urethane Coating and Printing	Yes
GGG	VOC Equipment Leaks in Petroleum Refineries	Yes
HHH	Synthetic Fiber Production	Yes
III	VOC Emissions from the SOCOMI Air Oxidation Unit Processes	Yes
JJJ	Petroleum Dry Cleaners	Yes
KKK	VOC Equipment Leaks From Onshore Natural Gas Processing Plants	Yes
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	Yes
NNN	VOC Emissions from SOCOMI Distillation Operations	Yes
OOO	Nonmetallic Mineral Processing Plants	Yes
PPP	Wool Fiberglass Insulation Manufacturing Plants	Yes
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	Yes
RRR	VOC Emissions from SOCOMI Reactor Processes	Yes
SSS	Magnetic Tape Coating Operations	Yes
TTT	Industrial Surface Coating: Plastic Parts for Business Machines	Yes
UUU	Calciners and Dryers in Mineral Industries	Yes
VVV	Polymeric Coating of Supporting Substrates Facilities	Yes
WWW	Municipal Solid Waste Landfills	Yes
AAAA	Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or Modification/Reconstruction is Commenced After 6/06/2001)	Yes
CCCC	Commercial & Industrial Solid Waste Incineration Units (Construction is Commenced After 11/30/1999 or Modification/Reconstruction is Commenced on or After 6/01/2001)	Yes
DDDD	Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)	Yes
EEEE	Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)	Yes

Subpart	Source category	LDEQ ¹
IIII	Stationary Compression Ignition Internal Combustion Engines	Yes
JJJJ	Stationary Spark Ignition Internal Combustion Engines	Yes
KKKK	Stationary Combustion Turbines (Construction Commenced After 02/18/2005)	Yes
LLLL	New Sewage Sludge Incineration Units	Yes
MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	Yes
OOOO	Crude Oil and Natural Gas Production, Transmission and Distribution	Yes

¹The Louisiana Department of Environmental Quality (LDEQ) has been delegated all Part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters—as amended in the FEDERAL REGISTER through July 1, 2013.

(3) *Albuquerque-Bernalillo County Air Quality Control Board.* The Albuquerque-Bernalillo County Air Quality Control Board has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters, as amended in the FEDERAL REGISTER through September 13, 2013.

§60.5 Determination of construction or modification.

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

§60.6 Review of plans.

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)(1) A separate request shall be submitted for each construction or modification project.
 - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall
 - (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or
 - (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

§60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
 - (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - (2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance
 Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period¹

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]		3. [Total CMS Downtime] × (100) [Total source operating time]	
	% ²		% ²

¹For opacity, record all times in minutes. For gases, record all times in hours.

²For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required

by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

§60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three

runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at

ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (i) Preparing the sample;
- (ii) Confirming the true concentration of the sample;

(iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.

(iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;

(v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(i) Checking audit samples to confirm their true value as reported by the AASP;

(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all

accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

§60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

§60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the

maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data

collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

§60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

§60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part must check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

- (i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.
- (ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
- (iii) For any operating hour in which required maintenance or quality-assurance activities are performed:
 - (A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
 - (B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
- (iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
- (v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under §60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the

procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

§60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission

tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]
- (e) The following shall not, by themselves, be considered modifications under this part:
 - (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
 - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
 - (3) An increase in the hours of operation.
 - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
 - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
 - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

- (i) Is designated as a replacement for an existing unit;
- (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
- (iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

§60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

- (1) Name and address of the owner or operator.
- (2) The location of the existing facility.
- (3) A brief description of the existing facility and the components which are to be replaced.
- (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
- (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
- (6) The estimated life of the existing facility after the replacements.
- (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
- (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
- (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

§60.16 Priority list.

Prioritized Major Source Categories

<i>Priority Number¹</i>	<i>Source Category</i>
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.

Priority Number¹	Source Category
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)
16.	Phosphate Rock Preparation
17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene
19.	Charcoal Production
20.	Synthetic Rubber
	(a) Tire manufacture
	(b) SBR production
21.	Vegetable Oil
22.	Industrial Surface Coating: Metal Coil
23.	Petroleum Transportation and Marketing
24.	By-Product Coke Ovens
25.	Synthetic Fibers
26.	Plywood Manufacture
27.	Industrial Surface Coating: Automobiles
28.	Industrial Surface Coating: Large Appliances
29.	Crude Oil and Natural Gas Production
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate ²
33.	Glass
34.	Gypsum
35.	Sodium Carbonate
36.	Secondary Zinc (Deleted)

Permit Issued: [month day, year]
 Permit Expires: [month day, year]

Priority Number¹	Source Category
37.	Polymers and Resins: Phenolic
38.	Polymers and Resins: Urea-Melamine
39.	Ammonia (Deleted)
40.	Polymers and Resins: Polystyrene
41.	Polymers and Resins: ABS-SAN Resins
42.	Fiberglass
43.	Polymers and Resins: Polypropylene
44.	Textile Processing
45.	Asphalt Processing and Asphalt Roofing Manufacture
46.	Brick and Related Clay Products
47.	Ceramic Clay Manufacturing (Deleted)
48.	Ammonium Nitrate Fertilizer
49.	Castable Refractories (Deleted)
50.	Borax and Boric Acid (Deleted)
51.	Polymers and Resins: Polyester Resins
52.	Ammonium Sulfate
53.	Starch
54.	Perlite
55.	Phosphoric Acid: Thermal Process (Deleted)
56.	Uranium Refining
57.	Animal Feed Defluorination (Deleted)
58.	Urea (for fertilizer and polymers)
59.	Detergent (Deleted)
<i>Other Source Categories</i>	
Lead acid battery manufacture ³	
Organic solvent cleaning ³	
Industrial surface coating: metal furniture ³	

Priority Number ¹	Source Category
	Stationary gas turbines ⁴
	Municipal solid waste landfills ⁴

¹Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

²Formerly titled "Sintering: Clay and Fly Ash".

³Minor source category, but included on list since an NSPS is being developed for that source category.

⁴Not prioritized, since an NSPS for this major source category has already been promulgated.

§60.17 Incorporations by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the EPA must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW., Washington, DC, telephone number 202-566-1744, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

(b) American Gas Association, available through ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for §60.107a(d).

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for §60.107a(d).

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for §60.107a(d).

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for §60.107a(d).

(c) American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §§60.35e and 60.55c.

(2) [Reserved]

(d) The following material is available for purchase from the American National Standards Institute (ANSI), 25 W. 43rd Street, 4th Floor, New York, NY 10036, Telephone (212) 642-4980, and is also available at the following Web site: <http://www.ansi.org>.

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010), IBR approved for §60.5535(d).

(2) [Reserved]

(e) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved for §§60.111(i), 60.111a(f), and 60.116b(e).

(2) API Manual of Petroleum Measurement Standards, Chapter 14—Natural Gas Fluids Measurement, Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, May 2016, IBR approved for §60.4415(a).

(3) API Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for §60.107a(d).

(f) American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

(1) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” Incorporated by reference for appendix A-8 to part 60, Method 29, §§9.2.3, 10.3, and 11.1.3.

(2) 2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, IBR approved for §60.154(b).

(g) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, and is also available at the following Web site: <http://www.asme.org>.

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(2) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for §60.107a(d).

(3) ASME/ANSI MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for §60.107a(d).

(4) ASME/ANSI MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for §60.107a(d).

- (5) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for §60.107a(d).
- (6) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for §60.107a(d).
- (7) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for §60.107a(d).
- (8) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for §60.107a(d).
- (9) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for §60.107a(d).
- (10) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for §60.107a(d).
- (11) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for §60.107a(d).
- (12) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for §60.107a(d).
- (13) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b, 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).
- (14) ASME/ANSI PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], (Issued August 31, 1981), IBR approved for §§60.56c(b), 60.63(f), 60.106(e), 60.104a(d), (h), (i), and (j), 60.105a(b), (d), (f), and (g), 60.106a(a), 60.107a(a), (c), and (d), tables 1 and 3 to subpart EEEE, tables 2 and 4 to subpart FFFF, table 2 to subpart JJJJ, §§60.285a(f), 60.4415(a), 60.2145(s) and (t), 60.2710(s) and (t), 60.2730(q), 60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, tables 2 and 3 to subpart MMMM, §§60.5406(c), 60.5406a(c), 60.5407a(g), 60.5413(b), 60.5413a(b), and 60.5413a(d).
- (15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014), IBR approved for §60.5580.
- (16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997), IBR approved for §60.5580.
- (17) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.54b(a) and (b), 60.56a, 60.1185(a) and (c), and 60.1675(a) and (c).
- (h) The following material is available for purchase from ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959, (800) 262-1373, <http://www.astm.org>.
- (1) ASTM A99-76, Standard Specification for Ferromanganese, IBR approved for §60.261.
- (2) ASTM A99-82 (Reapproved 1987), Standard Specification for Ferromanganese, IBR approved for §60.261.
- (3) ASTM A100-69, Standard Specification for Ferrosilicon, IBR approved for §60.261.

- (4) ASTM A100-74, Standard Specification for Ferrosilicon, IBR approved for §60.261.
- (5) ASTM A100-93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
- (6) ASTM A101-73, Standard Specification for Ferrochromium, IBR approved for §60.261.
- (7) ASTM A101-93, Standard Specification for Ferrochromium, IBR approved for §60.261.
- (8) ASTM A482-76, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
- (9) ASTM A482-93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
- (10) ASTM A483-64, Standard Specification for Silicomanganese, IBR approved for §60.261.
- (11) ASTM A483-74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
- (12) ASTM A495-76, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
- (13) ASTM A495-94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
- (14) ASTM D86-78, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (15) ASTM D86-82, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (16) ASTM D86-90, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (17) ASTM D86-93, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (18) ASTM D86-95, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (19) ASTM D86-96, Distillation of Petroleum Products, (Approved April 10, 1996), IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h), 60.5401(f), 60.5401a(f).
- (20) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (21) ASTM D129-78, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (22) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (23) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.335(b).
- (24) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a).

- (25) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (26) ASTM D240-92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and appendix A-7: Method 19, Section 12.5.2.2.3.
- (27) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for §60.107a(d).
- (28) ASTM D270-65, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (29) ASTM D270-75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (30) ASTM D323-82, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (31) ASTM D323-94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (32) ASTM D388-77, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (33) ASTM D388-90, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (34) ASTM D388-91, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (35) ASTM D388-95, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (36) ASTM D388-98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (37) ASTM D388-99 (Reapproved 2004)^{e1} Standard Classification of Coals by Rank, IBR approved for §§60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, 60.251, and 60.5580.
- (38) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (39) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (40) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (41) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), and 60.111a(b).

- (42) ASTM D396-98, Standard Specification for Fuel Oils, IBR approved for §§60.41b, 60.41c, 60.111(b), 60.111a(b), and 60.5580.
- (43) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (44) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (45) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) and 60.111a(b).
- (46) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.41b 60.41c, and 60.5580.
- (47) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b).
- (48) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b).
- (49) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a).
- (50) ASTM D1137-53, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f).
- (51) ASTM D1137-75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f).
- (52) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (53) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (54) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).
- (55) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).
- (56) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j) and 60.335(b).

- (57) ASTM D1266-98 (Reapproved 2003)^e, 1 Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a).
- (58) ASTM D1475-60 (Reapproved 1980), Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (59) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, §§6.5 and 7.1.
- (60) ASTM D1552-83, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (61) ASTM D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (62) ASTM D1552-01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (63) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a).
- (64) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (65) ASTM D1826-94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (66) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for §60.107a(d).
- (67) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (68) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (69) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (70) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da, 60.41b, and 60.41c.
- (71) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).

- (72) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (73) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (74) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f).
- (75) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, (Approved January 1, 2010), IBR approved for §§60.107a(d), 60.5413(d), 60.5413a(d).
- (76) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (77) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (78) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for §60.107a(d).
- (79) ASTM D2013-72, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (80) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (81) ASTM D2015-77 (Reapproved 1978), Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (82) ASTM D2015-96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (83) ASTM D2016-74, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (84) ASTM D2016-83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (85) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (86) ASTM D2234-96, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (87) ASTM D2234-97b, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (88) ASTM D2234-98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.

- (89) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (90) ASTM D2369-87, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (91) ASTM D2369-90, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (92) ASTM D2369-92, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (93) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (94) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (95) ASTM D2369-10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, (Approved June 1, 2015); IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (96) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (97) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (98) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (99) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (100) ASTM D2504-88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g) and 60.485a(g).
- (101) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c).
- (102) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c).
- (103) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b).
- (104) ASTM D2622-87, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).
- (105) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).

- (106) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j) and 60.335(b).
- (107) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a).
- (108) ASTM D2879-83 Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (109) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (110) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e), 60.116b(f), 60.485(e), and 60.485a(e).
- (111) ASTM D2880-78, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (112) ASTM D2880-96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (113) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (114) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (115) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (116) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (117) ASTM D2986-95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (118) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (119) ASTM D3173-87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (120) ASTM D3176-74, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (121) ASTM D3176-89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.

- (122) ASTM D3177-75, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (123) ASTM D3177-89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (124) ASTM D3178-73 (Reapproved 1979), Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f).
- (125) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f).
- (126) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (127) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (128) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b).
- (129) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1).
- (130) ASTM D3270-73T, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (131) ASTM D3270-80, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (132) ASTM D3270-91, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (133) ASTM D3270-95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (134) ASTM D3286-85, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (135) ASTM D3286-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (136) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (137) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (138) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§60.107a(d), 60.5413(d), and 60.5413a(d).

- (139) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (140) ASTM D3792-79, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (141) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (142) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (143) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (144) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (145) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (146) ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (147) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a).
- (148) ASTM D4084-82, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h).
- (149) ASTM D4084-94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h).
- (150) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a).
- (151) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (152) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a).
- (153) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (154) ASTM D4239-94, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (155) ASTM D4239-97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.

- (156) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b).
- (157) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a).
- (158) ASTM D4442-84, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (159) ASTM D4442-92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (160) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (161) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.5.
- (162) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b) and 60.4415(a).
- (163) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, (Approved June 1, 2006), IBR approved for §60.107a(e).
- (164) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b).
- (165) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(d), 60.664(e), and 60.704(d).
- (166) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for §60.107a(d).
- (167) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a).
- (168) ASTM D4891-89 (Reapproved 2006) Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§60.107a(d), 60.5413(d), and 60.5413a(d).
- (169) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a).
- (170) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A-7 to part 60: Method 24, Section 6.6.
- (171) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b).

- (172) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a).
- (173) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h) and 60.4360.
- (174) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§60.107a(e) and 60.5413(d).
- (175) ASTM D5623-19, Standard Test Method for Sulfur Compounds in Light Petroleum Liquids by Gas Chromatography and Sulfur Selective Detection, (Approved July 1, 2019); IBR approved for §60.4415(a).
- (176) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b).
- (177) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §§60.45(f) and 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (178) ASTM D5865-10, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved January 1, 2010), IBR approved for §§60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, section 12.5.2.1.3.
- (179) ASTM D6216-12, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved October 1, 2012; IBR approved for appendix B to part 60.
- (180) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h).
- (181) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (182) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, (Approved October 1, 2003), IBR approved for §60.73a(b), table 7 to subpart IIII, table 2 to subpart JJJJ, and §60.4245(d).
- (183) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9).
- (184) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for §60.107a(d) and table 2 to subpart JJJJ.

- (185) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (186) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 2 to subpart JJJJ, §§60.5413(b) and (d), and 60.5413a(b).
- (187) ASTM D6522-11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved December 1, 2011), IBR approved for §60.37f(a), 60.766(a).
- (188) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b).
- (189) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a).
- (190) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (191) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for §60.56c(b) and appendix B to part 60: Performance Specification 12A, Section 8.6.2.
- (192) ASTM D6784-02 (Reapproved 2008) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), (Approved April 1, 2008), IBR approved for §§60.2165(j) and 60.2730(j), tables 5, 6 and 8 to subpart CCCC, and tables 2, 6, 7, and 9 to subpart DDDD, §§60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.
- (193) ASTM D6911-15, Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis, approved January 15, 2015, IBR approved for appendix A-8: Method 30B.
- (194) ASTM D7039-15a, Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Boideisel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry, (Approved July 1, 2015); IBR approved for §60.4415(a).
- (195) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§60.41b, 60.41c, and 60.5580.
- (196) ASTM E168-67, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

- (197) ASTM E168-77, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (198) ASTM E168-92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400, 60.5400a(f).
- (199) ASTM E169-63, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f) .
- (200) ASTM E169-77, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d), 60.593(b), and 60.593a(b), 60.632(f).
- (201) ASTM E169-93, General Techniques of Ultraviolet Quantitative Analysis, (Approved May 15, 1993), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), and 60.5400a(f).
- (202) ASTM E260-73, General Gas Chromatography Procedures, IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (203) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (204) ASTM E260-96, General Gas Chromatography Procedures, (Approved April 10, 1996), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), 60.5400a(f) 60.5406(b), and 60.5406a(b)(3).
- (205) ASTM E617-13, Standard Specification for Laboratory Weights and Precision Mass Standards, approved May 1, 2013, IBR approved for appendix A-3: Methods 4, 5, 5H, 5I, and appendix A-8: Method 29.
- (206) ASTM E871-82 (Reapproved 2013), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved August 15, 2013), IBR approved for appendix A-8: method 28R.
- (207) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for §60.73a(c).
- (208) ASTM E2515-11, Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel, (Approved November 1, 2011), IBR approved for §60.534 and §60.5476.
- (209) ASTM E2618-13 Standard Test Method for Measurement of Particulate Matter Emissions and Heating Efficiency of Outdoor Solid Fuel-Fired Hydronic Heating Appliances, (Approved September 1, 2013), IBR approved for §60.5476.
- (210) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for §60.534.
- (211) ASTM E2780-10, Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters, (Approved October 1, 2010), IBR approved for appendix A: method 28R.
- (212) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for §60.107a(d).
- (i) Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), 11th edition, 1970, pp. 11-12, IBR approved for §§60.204(b), 60.214(b), 60.224(b), and 60.234(b).

(2) [Reserved]

(j) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.

(1) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, September 1997, IBR approved for §§60.2145(r), 60.2710(r), 60.4905(b), and 60.5225(b).

(2) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for §§60.5413(d) and 60.5413a(d).

(3) SW-846-6010D, Inductively Coupled Plasma-Optical Emission Spectrometry, Revision 5, July 2018, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for appendix A-5 to part 60: Method 12.

(4) SW-846-6020B, Inductively Coupled Plasma-Mass Spectrometry, Revision 2, July 2014, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for appendix A-5 to part 60: Method 12.

(k) GPA Midstream Association (formerly known as Gas Processors Association), Sixty Sixty American Plaza, Suite 700, Tulsa, OK 74135.

NOTE 1 TO PARAGRAPH (k): Material in this paragraph that is no longer available from GPA may be available through the reseller HIS Markit, 15 Inverness Way East, P.O. Box 1154, Englewood, CO 80150-1154, <https://global.ihs.com/>. For material that is out-of-print, contact EPA's Air and Radiation Docket and Information Center, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460 or *a-and-rdoCKET@epa.gov*.

(1) GPA Midstream Standard 2140-17 (GPA 2140-17), Liquefied Petroleum Gas Specifications and Test Methods, (Revised 2017), IBR approved for §60.4415(a).

(2) GPA Midstream Standard 2166-17 (GPA 2166-17), Obtaining Natural Gas Samples for Analysis by Gas Chromatography, (Reaffirmed 2017), IBR approved for §60.4415(a).

(3) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for §60.107a(d).

(4) GPA Standard 2174-14 (GPA 2174-14), Obtaining Liquid Hydrocarbon Samples for Analysis by Gas Chromatography, (Revised 2014), IBR approved for §60.4415(a).

(5) GPA Standard 2261-19 (GPA 2261-19), Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, (Revised 2019), IBR approved for §60.4415(a).

(6) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§60.105(b), 60.107a(b), 60.334(h), 60.4360, and 60.4415(a).

(l) International Organization for Standardization (ISO) available through IHS Inc., 15 Inverness Way East, Englewood, CO 80112.

(1) ISO 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).

(2) ISO 10715:1997(E), Natural gas—Sampling guidelines, (First Edition, June 1, 1997), IBR approved for §60.4415(a)

(m) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for §60.5580.

(2) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, IBR approved for §60.107a(d).

(n) This material is available for purchase from the National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at the EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.

(2) [Reserved]

(o) North American Electric Reliability Corporation, 1325 G Street NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§60.4211(f) and 60.4243(d). Also available online: http://www.nerc.com/files/EOP-002-3____1.pdf.

(2) [Reserved]

(p) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092, Telephone (800) 332-8686, and is also available at the following Web site: <http://www.tappi.org>.

(1) TAPPI Method T 624 cm-11, (Copyright 2011), IBR approved, for §§60.285(d) and 60.285a(d).

(2) [Reserved]

(q) Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(r) Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved for §60.683(b).

(2) [Reserved]

(s) West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21, 90 and 91, September 3, 1970, revised 1984, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(t) This material is available for purchase from the Canadian Standards Association (CSA), 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6, Telephone: 800-463-6727.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for §60.534 and §60.5476. (The standard is also available at <http://shop.csa.ca/en/canada/fuel-burning-equipment/b4151-10/invt/27013322010>)

(2) [Reserved]

(u) This European National (EN) standards material is available for purchase at European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium, Telephone: + 32 2 550 08 11.

(1) DIN EN 303-5:2012E (EN 303-5), Heating boilers—Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW—Terminology, requirements, testing and marking, (October 2012), IBR approved for §60.5476. (The standard is also available at http://www.en-standard.eu/csn-en-303-5-heating-boilers-part-5-heating-boilers-for-solid-fuels-manually-and-automatically-stoked-nominal-heat-output-of-up-to-500-kw-terminology-requirements-testing-and-marking/?gclid=CJXI2P_____97MMCFdcccQodan8ATA)

(2) [Reserved]

§60.18 General control device and work practice requirements.

(a) *Introduction.*

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant}, \frac{1}{1.740 \times 10^{-7}} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated

equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

- (i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.
- (ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{std}) \sum_{i=1}^4 \chi_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to *CCG-AWP@EPA.GOV*.

§60.19 General notification and reporting requirements.

(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement

between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

Table 1 to Subpart A of Part 60—Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix J: Alternative Test Methods for VE or Opacity Determination for Intermittent Dust-Generating Operations

1.1 Applicability: This method is applicable for the determination of opacity of fugitive dust plumes from intermittent dust-generating operations.

1.2 Principle: The opacity of emissions from sources of visible emissions is determined visually by a qualified observer certified according to the procedure in EPA Test Method 9.

1.3 Procedures: A qualified observer, shall use the following procedures for visually determining the opacity of emissions. The Commissioner may approve changes to the alternative test method, in lieu of the test method described below, based upon the criteria described in Minn. R. 7017.2050, subp. 2, items A and B.

1.3.1 To determine the opacity of non-continuous dust plumes caused by activities including, but not limited to, bulk material loading/unloading, bulk material handling, reclaim activities, and truck traffic within a bunker:

a. Position: The qualified observer must stand at least 25 feet, but no more than 200 feet from the dust-generating operation in order to provide a clear view of the emissions with the sun oriented in the 140° sector to their back. Choose a discrete portion of the operation for observation, such as the unloading point, not the whole operation. As much as possible following the above requirements, make opacity observations so that the line of vision is perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

b. Initial Fallout Zone: Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone (provide a sketch to provide scale).

c. Field Records: Note the following on an observational record sheet:

- (1) Location of dust-generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
- (2) Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust-generating operation, and observer's estimated distance and direction to the location of the dust-generating operation;
- (3) Time that readings begin, approximate wind direction, estimated wind-speed, description of the sky condition (presence and color of clouds);
- (4) Color of the plume and type of background; and
- (5) Sketch of Initial Fallout Zone location relative to the emission source.

d. Observations: Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

e. Recording Observations: Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a five-second period. Repeat observations until you have recorded at least a total of 12 consecutive opacity readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled over).

f. Data Reduction: Opacity is determined as the average of 12 consecutive opacity readings. Divide the observations into sets of 12 consecutive observations. In no case shall two sets overlap. For each set of 12 observations, calculate the average by summing the opacity of the 12 observations and dividing this sum by 12. If an applicable standard or requirement specifies a different averaging time, calculate the average for the observations in accordance with the specified time period. Record the average opacity

on a record sheet. If the average opacity reading equals 20% or lower, the dust-generating operation is in compliance.

The existence of visible emissions only (not a specific opacity) is determined visually by an observer using EPA Test Method 22. The observer using EPA Test Method 22 is not required to be certified.

2. ALTERNATIVE TEST METHOD for VISUAL EMISSIONS DETERMINATION from INTERMITTENT DUST-GENERATING OPERATIONS (alternative to METHOD 22)

2.1 Applicability: This method is applicable for the determination of visible emissions from fugitive dust plumes from intermittent dust-generating operations.

2.2 Principle: This method determines the amount of time that visible emissions occur during the observation period. This method does not require that the opacity of emissions be determined, therefore observer certification according to the procedures of EPA Method 9 is not required. However, it is necessary that the observer is knowledgeable with respect to the general procedures for determining the presence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background, contrast, ambient lighting, observer position relative to lighting, wind, and the presence on uncombined water (condensing water vapor) on the visibility of emissions. This training can be obtained from written materials found in the lecture portion of the Method 9 certification course.

2.3 Definitions:

2.3.1 Emission frequency means the percentage of time that emissions are visible during the observation period.

2.3.2 Emission time means the accumulated amount of time that emissions are visible during the observation period.

2.3.3 Observation period means the accumulated time period during which observations are conducted, not to be less than the period specified in the applicable regulation.

2.4 Interferences: Occasionally, fugitive emissions from sources other than the affected facility or emission point being read (e.g., road dust) may prevent a clear view of the affected facility. This may particularly be a problem during periods of high wind. If the view of the potential emission points is obscured to such a degree that the observer questions the validity of continuing observations, then the observations shall be terminated, and the observer shall clearly note this fact on the data form.

2.5 Procedures: An observer shall use the following procedures for visually determining the existence of visible emissions. The Commissioner may approve changes to the alternative test method, in lieu of the test method described below, based upon the criteria described in Minn. R. 7017.2050, subp. 2, items A and B.

2.5.1 Activities to be monitored include, but are not limited to, bulk material loading/unloading, bulk material handling, reclaim activities, and truck traffic within a bunker:

a. Position: Survey the affected facility, or the process to be observed, and determine the locations of potential emissions. Determine an observation location that is consistent with the requirements of the applicable regulation and/or permit requirement (e.g., outside observation of emissions escaping the building/structure, outside observation at the property line). Then select a position that enables a clear view of the emissions. The sun should be oriented in the 140° sector to the back, but at a minimum the sunlight must not be shining directly in the observer's eyes. The observer must be in a position of at least 25 feet, but not more than 200 feet, from the emission source. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

b. Initial Fallout Zone: Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. For visible emissions readings at sources with entrained fugitive dust, the initial fallout zone within the plume must be identified. Record

the distance from the equipment or path that is your identified initial fallout zone (a sketch is helpful to put this in perspective).

c. Field Records: Note the following on an observational record sheet:

- (1) Location of dust-generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
- (2) Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust-generating operation, and observer's estimated distance and direction to the location of the dust-generating operation;
- (3) Time that readings begin, approximate wind direction, estimated wind-speed, description of the sky condition (presence and color of clouds);
- (4) Color of the plume and type of background; and
- (5) Sketch of Initial Fallout Zone location relative to the emission source.

d. Observations: Make observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

e. Recording Observations: Record whether or not visible emissions were identified on an observational record sheet (Y or N). Each momentary observation recorded represents the average emissions for a five-second period. Repeat observations until you have recorded at least a total of 12 consecutive readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled over).

f. Data Reduction: Review the readings. If all visible emissions are identified as N (none present), the dust-generating operation is in compliance.

Appendix K: 40 CFR pt. 60, subp. VVa —Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

§60.480a Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in §60.481a) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486a(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) of a chemical listed in §60.489 is exempt from §§60.482-1a through 60.482-11a.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§60.482-1a through 60.482-11a.

(4) Any affected facility that produces beverage alcohol is exempt from §§60.482-1a through 60.482-11a.

(5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§60.482-1a through 60.482-11a.

(e) *Alternative means of compliance—*

(1) *Option to comply with part 65.*

(i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §§60.485a(d), (e), and (f), and 60.486a(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(1)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

(2) *Part 63, subpart H.*

(i) Owners or operators may choose to comply with the provisions of 40 CFR part 63, subpart H, to satisfy the requirements of §§60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 63, subpart H, the requirements of §60.485a(d), (e), and (f), and §60.486a(i) and (j) still apply.

(ii) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 63, subpart H must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment.

All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 63, subpart H, except that provisions required to be met prior to implementing 40 CFR part 63 still apply. Owners and operators who choose to comply with 40 CFR part 63, subpart H, must comply with 40 CFR part 63, subpart A.

(f) *Stay of standards.*

(1) Owners or operators that start a new, reconstructed, or modified affected source prior to November 16, 2007 are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

(i) The definition of “capital expenditure” in §60.481a of this subpart. While the definition of “capital expenditure” is stayed, owners or operators should use the definition found in §60.481 of subpart VV of this part.

(ii) [Reserved]

(2) Owners or operators are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

(i) The definition of “process unit” in §60.481a of this subpart. While the definition of “process unit” is stayed, owners or operators should use the following definition:

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

(ii) The method of allocation of shared storage vessels in §60.482-1a(g) of this subpart.

(iii) The standards for connectors in gas/vapor service and in light liquid service in §60.482-11a of this subpart.

§60.481a Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA) or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where:

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$$A = Y \times (B \div 100);$$

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 2006 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable Value for B

Subpart applicable to facility	Value of B to be used in equation
VVa	12.5
GGGa	7.0

Closed-loop system means an enclosed system that returns process fluid to the process.

Closed-purge system means a system or combination of systems and portable containers to capture purged liquids. Containers for purged liquids must be covered or closed when not being filled or emptied.

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment or that close an opening in a pipe that could be connected to another pipe. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, P.O. Box 2300, Fairfield, NJ 07007-2300).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485a(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa) (0.7 psia) below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485a(d) specify how to determine that a piece of equipment is not in VOC service.)

Initial calibration value means the concentration measured during the initial calibration at the beginning of each day required in §60.485a(b)(1), or the most recent calibration if the instrument is recalibrated during the day (i.e., the calibration is adjusted) after a calibration drift assessment.

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in §60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels (except as specified in §60.482-1a(g)), product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in this subpart.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. The following are not considered process unit shutdowns:

- (1) An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours.
- (2) An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.
- (3) The use of spare equipment and technically feasible bypassing of equipment without stopping production.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as defined in the applicable sections of this subpart and, except for leaks identified in accordance with §§60.482-2a(b)(2)(ii) and (d)(6)(ii) and (d)(6)(iii), 60.482-3a(f), and 60.482-10a(f)(1)(ii), is re-monitored as specified in §60.485a(b) to verify that emissions from the equipment are below the applicable leak definition.

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Storage vessel means a tank or other vessel that is used to store organic liquids that are used in the process as raw material feedstocks, produced as intermediates or final products, or generated as wastes. Storage vessel does not include vessels permanently attached to motor vehicles, such as trucks, railcars, barges or ships.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are used to fill tank trucks and/or railcars with organic liquids.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in §60.481a, the definitions of “capital expenditure” and “process unit” were stayed until further notice.

§60.482-1a Standards: General.

- (a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482-1a through 60.482-10a or §60.480a(e) for all equipment within 180 days of initial startup.
- (b) Compliance with §§60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485a.
- (c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in §60.484a.
 - (2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §60.482-2a, §60.482-3a, §60.482-5a, §60.482-6a, §60.482-7a, §60.482-8a, or §60.482-10a, an owner or operator shall comply with the requirements of that determination.
- (d) Equipment that is in vacuum service is excluded from the requirements of §§60.482-2a through 60.482-10a if it is identified as required in §60.486a(e)(5).
- (e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of §§60.482-2a through 60.482-11a if it is identified as required in §60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section.
 - (1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.
 - (2) The equipment is in VOC service only during process malfunctions or other emergencies.
 - (3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in §§60.482-2a, 60.482-7a, and 60.483.2a:

Operating time (percent of hours during year)	Equivalent monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three quarters	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered.

(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section.

(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

(ii) When monitoring is conducted semiannually (*i.e.*, once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to this subpart, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to this subpart of this part, the storage vessel is assigned to any process unit subject to subpart VV of this part. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, in §60.482-1a, paragraph (g) was stayed until further notice.

§60.482-2a Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485a(b), except as provided in §60.482-1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the

first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482-1a(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in §60.482-1a(f).

(b)(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

(ii) 2,000 ppm or greater for all other pumps.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable.

(i) Monitor the pump within 5 days as specified in §60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9a.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met.

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482-10a; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection.

(A) Monitor the pump within 5 days as specified in §60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected.

(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in §60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing;

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in §60.485a(c); and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482-10a, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

§60.482-3a Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-1a(c) and paragraphs (h), (i), and (j) of this section.

(b) Each compressor seal system as required in paragraph (a) of this section shall be:

- (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
- (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482-10a; or
- (3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) of this section shall be checked daily or shall be equipped with an audible alarm.

- (2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9a.

- (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of §60.482-10a, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in §60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a) through (h) of this section if the compressor:

- (1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485a(c); and
- (2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from paragraphs (a) through (e) and (h) of this section, provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

§60.482-4a Standards: Pressure relief devices in gas/vapor service.

- (a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485a(c).
- (b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482-9a.
- (2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485a(c).
- (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482-10a is exempted from the requirements of paragraphs (a) and (b) of this section.
- (d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.
- (2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9a.

§60.482-5a Standards: Sampling connection systems.

- (a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1a(c) and paragraph (c) of this section.
- (b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.
- (1) Gases displaced during filling of the sample container are not required to be collected or captured.
- (2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.
- (3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.
- (4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.
- (i) Return the purged process fluid directly to the process line.
- (ii) Collect and recycle the purged process fluid to a process.
- (iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482-10a.
- (iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:
- (A) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§60.482-6a Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1a(c) and paragraphs (d) and (e) of this section.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

§60.482-7a Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485a(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, §60.482-1a(c) and (f), and §§60.483-1a and 60.483-2a.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, §60.482-1a(c), and §§60.483-1a and 60.483-2a.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with §60.483-1a or §60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in

§60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

- (b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
- (c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.
 - (ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.
- (2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
- (d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482-9a.
 - (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (e) First attempts at repair include, but are not limited to, the following best practices where practicable:
 - (1) Tightening of bonnet bolts;
 - (2) Replacement of bonnet bolts;
 - (3) Tightening of packing gland nuts;
 - (4) Injection of lubricant into lubricated packing.
- (f) Any valve that is designated, as described in §60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve:
 - (1) Has no external actuating mechanism in contact with the process fluid,
 - (2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485a(c), and
 - (3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.
- (g) Any valve that is designated, as described in §60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:
 - (1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section, and
 - (2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
- (h) Any valve that is designated, as described in §60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if:
 - (1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either:

- (i) Becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or
- (ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§60.482-8a Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:

- (1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.
- (2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9a.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §§60.482-2a(c)(2) and 60.482-7a(e).

§60.482-9a Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves and connectors will be allowed if:

- (1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
- (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482-10a.

(d) Delay of repair for pumps will be allowed if:

- (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
- (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly

supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

§60.482-10a Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (ii) of this section:

- (i) Conduct an initial inspection according to the procedures in §60.485a(b); and
- (ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

- (i) Conduct an initial inspection according to the procedures in §60.485a(b); and
- (ii) Conduct annual inspections according to the procedures in §60.485a(b).

(g) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (2) of this section:

- (1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and
- (2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (3) of this section:

- (1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
- (2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
- (3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (5) of this section.

- (1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
- (2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
- (3) For each inspection during which a leak is detected, a record of the information specified in §60.486a(c).
- (4) For each inspection conducted in accordance with §60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

§60.482-11a Standards: Connectors in gas/vapor service and in light liquid service.

(a) The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

(b) Except as allowed in §60.482-1a(c), §60.482-10a, or as specified in paragraph (e) of this section, the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in §60.485a(b) and, as applicable, §60.485a(c).

(2) If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

(3) The owner or operator shall perform monitoring, subsequent to the initial monitoring required in paragraph (a) of this section, as specified in paragraphs (b)(3)(i) through (iii) of this section, and shall comply with the requirements of paragraphs (b)(3)(iv) and (v) of this section. The required period in which monitoring must be conducted shall be determined from paragraphs (b)(3)(i) through (iii) of this section using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in paragraph (c) of this section.

(i) If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

(ii) If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in paragraph (b)(3)(iii)(A) of this section and either paragraph (b)(3)(iii)(B) or (b)(3)(iii)(C) of this section, as appropriate.

(A) An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

(B) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant to paragraph (b)(3) of this section, based on the percent of leaking connectors within the total monitored connectors.

(C) If the percent of leaking connectors calculated from the monitoring results in paragraph (b)(3)(iii)(A) of this section is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If, during the monitoring conducted pursuant to paragraphs (b)(3)(i) through (iii) of this section, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit.

(c) For use in determining the monitoring frequency, as specified in paragraphs (a) and (b)(3) of this section, the percent leaking connectors as used in paragraphs (a) and (b)(3) of this section shall be calculated by using the following equation:

$$\%C_L = C_L / C_t * 100$$

Where:

$\%C_L$ = Percent of leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b)(3)(i) through (iii) of this section.

C_L = Number of connectors measured at 500 ppm or greater, by the method specified in §60.485a(b).

C_t = Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected pursuant to paragraphs (a) and (b) of this section, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in §60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of paragraphs (a) and (b) of this section if:

(1) The owner or operator of the connector demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (a) and (b) of this section; and

(2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (d) of this section if a leak is detected.

(f) *Inaccessible, ceramic, or ceramic-lined connectors.*

(1) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (b) of this section, from the leak repair requirements of paragraph (d) of this section, and from the recordkeeping and reporting requirements of §§63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in paragraphs (f)(1)(i) through (vi) of this section, as applicable:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

(g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of paragraph (f) of this section, identify the connectors subject to the requirements of this subpart.

Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

EFFECTIVE DATE NOTE: At 73 FR 31376, June 2, 2008, §60.482-11a was stayed until further notice.

§60.483-1a Alternative standards for valves—allowable percentage of valves leaking.

- (a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
- (b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:
 - (1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487a(d).
 - (2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.
 - (3) If a valve leak is detected, it shall be repaired in accordance with §60.482-7a(d) and (e).
- (c) Performance tests shall be conducted in the following manner:
 - (1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485a(b).
 - (2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
 - (3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.
- (d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in §60.485a(h).

§60.483-2a Alternative standards for valves—skip period leak detection and repair.

- (a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.
 - (2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d)a.
- (b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482-7a.
 - (2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
 - (3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
 - (4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482-7a but can again elect to use this section.
 - (5) The percent of valves leaking shall be determined as described in §60.485a(h).

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

(7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with §60.482-7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

§60.484a Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4) of this section.

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the CAA.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§60.485a Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of this part. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in §60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

(c) The owner or operator shall determine compliance with the no-detectable-emission standards in §§60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

- (1) The requirements of paragraph (b) shall apply.
 - (2) Method 21 of appendix A-7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- (d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:
- (1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.
 - (2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.
 - (3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement.
- (e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:
- (1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.
 - (2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F) is equal to or greater than 20 percent by weight.
 - (3) The fluid is a liquid at operating conditions.
- (f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
- (g) The owner or operator shall determine compliance with the standards of flares as follows:
- (1) Method 22 of appendix A-7 of this part shall be used to determine visible emissions.
 - (2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.
 - (3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{\max} = K_1 + K_2 H_T$$

Where:

V_{\max} = Maximum permitted velocity, m/sec (ft/sec).

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units).

K_2 = 0.7084 m⁴/(MJ-sec) (metric units) = 0.087 ft⁴/(Btu-sec) (English units).

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

K = Conversion constant, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units).

C_i = Concentration of sample component "i," ppm

H_i = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole.

(5) Method 18 of appendix A-6 of this part or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 ppmv) and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference-see §60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference-see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D of appendix A-7 of this part, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with §60.483-1a or §60.483-2a as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$$\%V_L = (V_L / V_T) * 100$$

Where:

$\%V_L$ = Percent leaking valves.

V_L = Number of valves found leaking.

V_T = The sum of the total number of valves monitored.

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with §60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

§60.486a Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a.

(i) Monitoring instrument identification.

(ii) Operator identification.

(iii) Equipment identification.

(iv) Date of monitoring.

(v) Instrument reading.

(b) When each leak is detected as specified in §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482-7a(c) and no leak has been detected during those 2 months.

(3) The identification on a connector may be removed after it has been monitored as specified in §60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring.

(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482-10a shall be recorded and kept in a readily accessible location:

- (1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
- (2) The dates and descriptions of any changes in the design specifications.
- (3) A description of the parameter or parameters monitored, as required in §60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
- (4) Periods when the closed vent systems and control devices required in §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.
- (5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

(e) The following information pertaining to all equipment subject to the requirements in §§60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location:

- (1) A list of identification numbers for equipment subject to the requirements of this subpart.
- (2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).
 - (ii) The designation of equipment as subject to the requirements of §60.482-2a(e), §60.482-3a(i), or §60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.
- (3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482-4a.
- (4)(i) The dates of each compliance test as required in §§60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).
 - (ii) The background level measured during each compliance test.
 - (iii) The maximum instrument reading measured at the equipment during each compliance test.
- (5) A list of identification numbers for equipment in vacuum service.
- (6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.
- (7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.
- (8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and §60.485a(b).
 - (i) Date of calibration and initials of operator performing the calibration.
 - (ii) Calibration gas cylinder identification, certification date, and certified concentration.
 - (iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.

(v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If an owner or operator makes their own calibration gas, a description of the procedure used.

(9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v).

(10) Records of each release from a pressure relief device subject to §60.482-4a.

(f) The following information pertaining to all valves subject to the requirements of §60.482-7a(g) and (h), all pumps subject to the requirements of §60.482-2a(g), and all connectors subject to the requirements of §60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with §60.483-2a:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in §§60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480a(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of §60.7(b) and (d) do not apply to affected facilities subject to this subpart.

§60.487a Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of §60.482-7a, excluding those valves designated for no detectable emissions under the provisions of §60.482-7a(f).

(3) Number of pumps subject to the requirements of §60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of §60.482-2a(e) and those pumps complying with §60.482-2a(f).

(4) Number of compressors subject to the requirements of §60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of §60.482-3a(i) and those compressors complying with §60.482-3a(h).

(5) Number of connectors subject to the requirements of §60.482-11a.

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486a:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in §60.482-7a(b) or §60.483-2a,

(ii) Number of valves for which leaks were not repaired as required in §60.482-7a(d)(1),

(iii) Number of pumps for which leaks were detected as described in §60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in §60.482-2a(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in §60.482-3a(f),

(vi) Number of compressors for which leaks were not repaired as required in §60.482-3a(g)(1),

(vii) Number of connectors for which leaks were detected as described in §60.482-11a(b)

(viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and

(ix)-(x) [Reserved]

(xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§60.483-1a or 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the state.

§60.488a Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under §60.15: Pump seals, nuts and bolts, rupture disks, and packings.

(b) Under §60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in §60.488a(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

§60.489a List of chemicals produced by affected facilities.

Process units that produce, as intermediates or final products, chemicals listed in §60.489 are covered under this subpart. The applicability date for process units producing one or more of these chemicals is November 8, 2006.

Appendix L. 40 CFR Part 63, Subpart A—General Provisions

§63.1 Applicability.

(a) *General.*

(1) Terms used throughout this part are defined in §63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in §63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4)(i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7)-(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail

carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that—

- (i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and
- (ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in §63.10(b)(3).

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in §63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether—

- (i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);
- (ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or
- (iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(6) A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants, as defined in this subpart, to below the major source thresholds established in §63.2, subject to the provisions in paragraphs (c)(6)(i) and (ii) of this section.

(i) A major source reclassifying to area source status is subject to the applicability of standards, compliance dates and notification requirements specified in (c)(6)(i)(A) of this section. An area source that previously was a major source and becomes a major source again is subject to the applicability of standards, compliance dates, and notification requirements specified in (c)(6)(i)(B) of this section:

(A) A major source reclassifying to area source status under this part remains subject to any applicable major source requirements established under this part until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements established under this part immediately, provided the compliance date for the area source requirements has passed. The owner or operator of a major source that becomes an area source subject to newly applicable area source requirements under this part must comply with the initial notification requirements pursuant to §63.9(b). The owner or operator of a major source that becomes an area source must also provide to the Administrator any change in the information already provided under §63.9(b) per §63.9(j).

(B) An area source that previously was a major source under this part and that becomes a major source again is subject to the applicable major source requirements established under this part immediately upon becoming a major source again, provided the compliance date for the major source requirements has passed, notwithstanding any provision within the applicable subparts. The owner or operator of an area source that becomes a major source again must comply with the initial notification pursuant to §63.9(b). The owner or operator must also provide to the Administrator any change in the information already provided under §63.9(b) per §63.9(j).

(ii) Becoming an area source does not absolve a source subject to an enforcement action or investigation for major source violations or infractions from the consequences of any actions occurring when the source was major. Becoming a major source does not absolve a source subject to an enforcement action or investigation for area source violations or infractions from the consequences of any actions occurring when the source was an area source.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the “affected source,” as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term “affected source,” as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of “affected source,” and the procedures for adopting an alternative definition of “affected source,” shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

- (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or
- (2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or
- (3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This

compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

- (1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;
- (2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;
- (3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;
- (4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);
- (5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;
- (6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:
 - (i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;
 - (ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;
 - (iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";
 - (iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and
 - (v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.
- (7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and
- (8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of §63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

- (1) Indicator(s) of performance—the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.
- (2) Measurement techniques—the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.
- (3) Monitoring frequency—the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.
- (4) Averaging time—the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of “new affected source,” and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term “new affected source,” which will be the same as the “affected source” unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

(i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and

(ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method,

system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by §63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) The delegation of authority to such representative is approved in advance by the Administrator.
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).
- (4) For affected sources (as defined in this part) applying for or subject to a title V permit: “responsible official” shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at www.epa.gov/PerformanceTrack) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m³ = cubic meter

mg = milligram = 10⁻³ gram

ml = milliliter = 10⁻³ liter

mm = millimeter = 10⁻³ meter

Mg = megagram = 10⁶ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10⁻⁹ gram

nm = nanometer = 10⁻⁹ meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10⁻⁶ gram

μl = microliter = 10^{-6} liter

(b) *Other units of measure:*

Btu = British thermal unit

$^{\circ}\text{C}$ = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

$^{\circ}\text{F}$ degree Fahrenheit

ft = feet

ft² = square feet

ft³ = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H₂O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd² = square yards

yr = year

(c) *Miscellaneous:*

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

§63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) *Circumvention*. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to—

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) *Fragmentation*. Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§63.5 Preconstruction review and notification requirements.

(a) *Applicability*.

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed sources*.

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in §63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of §63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in §63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in §63.9(h) (see §63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section—

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1)(i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause

emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

- (A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
- (B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;
- (C) The extent to which the components being replaced cause or contribute to the emissions from the source; and
- (D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—

- (i) Notice of the information and findings on which the intended denial is based; and
- (ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall—

- (i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
- (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also §63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with §63.1(a)(4) unless—

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are “more stringent” must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with §63.9(d)

(6) [Reserved]

(7) When an area source increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source, the portion of the facility that meets the definition of a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part, except as provided in §63.1(c)(6)(i). Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source and meets the definition of an existing source in the applicable major source standard shall be subject to relevant standards for existing sources. Except as provided in paragraph §63.1(c)(6)(i)(B), such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant

emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1)(i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to—

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
- (D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in §63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in §70.2 and §71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards—*

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in §63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in §63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in §63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the

promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with §63.7 and §63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in §63.7 and §63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards—*

(1) *Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—

- (A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;
- (B) The opacity or visible emission test was conducted under representative operating conditions for the source;
- (C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in §63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with §63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in §63.7 unless one of the following conditions applies:

(A) If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of §63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of §63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under §63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under §63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under §63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under §63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under §63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of §63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in §63.8(c) and §63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in §63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by §63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under §63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission

standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that—

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions—*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4)(i)(A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the

same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6)(i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C)-(D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will—

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v)(A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved

permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12)(i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with—

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

(1) The applicability of this section is set out in §63.1(a)(4).

(2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see §63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180

days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:

(i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Notification of performance test.

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) Quality assurance program.

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2)(i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60 of this chapter; Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60; Methods 18 and 19 of appendix A-6 of part 60; Methods 20, 22, and 25A of appendix A-7 of part 60; Methods 30A and 30B of appendix A-8 of part 60; and Methods 303, 318, 320, and 321 of appendix A of this part. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary.

“Commercially available” means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request, and the compliance authority may grant, a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (1) Preparing the sample;
- (2) Confirming the true concentration of the sample;
- (3) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
- (4) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (5) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (6) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(7) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(8) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.

(9) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(1) Checking audit samples to confirm their true value as reported by the AASP.

(2) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.

(3) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards__gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (c)(2)(iii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) Approval of site-specific test plan.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with—

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under §63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator—

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in §63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in §63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant

standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—

- (i) A sample is accidentally lost after the testing team leaves the site; or
- (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
- (iii) Extreme meteorological conditions occur; or
- (iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method—*

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator—

- (i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;
- (ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and
- (iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for

subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under §63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.*

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see §63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) Contents of a performance test, CMS performance evaluation, or CMS quality assurance test report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard, test method, CMS performance specification, or quality assurance requirement for a CMS, or as otherwise approved by the Administrator in writing, the report shall include the elements identified in paragraphs (g)(2)(i) through (vi) of this section.

- (i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.
- (ii) Purpose of the test including the applicable regulation requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard, and any process parameter component, and a brief process description.
- (iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.
- (iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.
- (v) Where a test method, CEMS, PEMS, or COMS performance specification, or on-going quality assurance requirement for a CEMS, PEMS, or COMS requires you record or report, the following shall be included in your report: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.
- (vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test including his/her email address.

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.*

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.*

(i) If a request is made for an extension of compliance under §63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under §63.6(i), §63.9(h), and §63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she—

(i) Approves or denies an extension of compliance under §63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under §63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§63.8 Monitoring requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in §63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in §63.11.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator—

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see §63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see §63.90(a) for definition).

(iii) Owners or operators with flares subject to §63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2)(i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is—

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices. (i) The owner or operator of an affected source must maintain and operate each CMS as specified in §63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in §63.6(e)(3).

- (2)(i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).
- (ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.
- (3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under §63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.
- (4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- (ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.
- (6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.
- (7)(i) A CMS is out of control if—
- (A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or
- (B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in §63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

- (i) Initial and any subsequent calibration of the CMS;
- (ii) Determination and adjustment of the calibration drift of the CMS;
- (iii) Preventive maintenance of the CMS, including spare parts inventory;
- (iv) Data recording, calculations, and reporting;
- (v) Accuracy audit procedures, including sampling and analysis methods; and
- (vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems—*

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under §63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3)(i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in §63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—

- (A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
- (B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under §63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under §63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under §63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under §63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in §63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.*

- (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation containing the information specified in §63.7(g)(2)(i) through (vi) simultaneously with the results of the performance test required under §63.7 or within 60 days of completion of the performance evaluation, unless otherwise specified in a relevant standard.
- (ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under §63.7 is conducted.

(f) *Use of an alternative monitoring method—*

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in §63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

- (i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;
- (ii) Alternative monitoring requirements when the affected source is infrequently operated;
- (iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

- (iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;
- (v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;
- (vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;
- (vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;
- (viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or
- (ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under §63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in §63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with—

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by §63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in §63.7, or other tests performed following the criteria in §63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that

the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 8.4 of Performance Specification 2.

(g) Reduction of monitoring data.

- (1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.
- (2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2.
- (3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/l of pollutant).
- (4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).
- (5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of §63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§63.9 Notification requirements.

(a) Applicability and general information.

- (1) The applicability of this section is set out in §63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4)(i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1)(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source subsequently becomes a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section. Area sources previously subject to major source requirements that become major sources again are also subject to the notification requirements of this paragraph and must submit the notification according to the requirements of paragraph (k) of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under §63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under §63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under §63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in §63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with §63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §63.6(i)(4) through §63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in §63.6(b)(3) and §63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under §63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in §63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under §63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under §63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under §63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by §63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by §63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by §63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2)(i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list—

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or

postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in §63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of §63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator within 15 calendar days after the change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this paragraph. The owner or operator may use the application for reclassification with the regulatory authority (*e.g.*, permit application) to fulfill the requirements of this paragraph. A source which reclassified after January 25, 2018, and before January 19, 2021, and has not yet provided the notification of a change in information is required to provide such notification no later than February 2, 2021, according to the requirements of paragraph (k) of this section. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of paragraph (k) of this section. A notification of reclassification must contain the following information:

- (1) The name and address of the owner or operator;
- (2) The address (*i.e.*, physical location) of the affected source;
- (3) An identification of the standard being reclassified from and to (if applicable); and
- (4) Date of effectiveness of the reclassification.

(k) *Electronic submission of notifications or reports.* If you are required to submit notifications or reports following the procedure specified in this paragraph (k), you must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The notification or report must be submitted by the deadline specified. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI, submit a complete notification or report, including information claimed to be CBI, to the EPA. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (k). All CBI claims must be asserted at the time of submission. Furthermore, under section 114(c) of the Act emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(1) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the electronic submittal requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (k)(1)(i) through (vii) of this section.

- (i) You must have been or will be precluded from accessing CEDRI and submitting a required notification or report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
- (ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the notification or report is due.
- (iii) The outage may be planned or unplanned.
- (iv) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (v) You must provide to the Administrator a written description identifying:

- (A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
- (B) A rationale for attributing the delay in submitting beyond the regulatory deadline to EPA system outage;
- (C) Measures taken or to be taken to minimize the delay in submitting; and
- (D) The date by which you propose to submit, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(vii) In any circumstance, the notification or report must be submitted electronically as soon as possible after the outage is resolved.

(2) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the electronic submittal requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (k)(2)(i) through (v) of this section.

(i) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a notification or report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(ii) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in submitting through CEDRI.

(iii) You must provide to the Administrator:

- (A) A written description of the force majeure event;
- (B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
- (C) Measures taken or to be taken to minimize the delay in reporting; and
- (D) The date by which you propose to submit the notification or report, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(iv) The decision to accept the claim of force majeure and allow an extension to the submittal deadline is solely within the discretion of the Administrator.

(v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

§63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.*

(1) The applicability of this section is set out in §63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4)(i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in §63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in §63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) *General recordkeeping requirements.*

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—

(i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;

(ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv)(A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));
or

(B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));

(v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly

measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under §63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under §63.9.

(3) If an owner or operator determines that his or her existing or new stationary source is in the source category regulated by a standard established pursuant to section 112 of the Act, but that source is not subject to the relevant standard (or other requirement established under this part) because of enforceable limitations on the source's potential to emit, or the source otherwise qualifies for an exclusion, the owner or operator must keep a record of the applicability determination. The applicability determination must be kept on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part), whichever comes first if the determination is made prior to January 19, 2021. The applicability determination must be kept until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part) if the determination was made on or after January 19, 2021. The record of the applicability determination must be signed by the person making the determination and include an emissions analysis (or other information) that demonstrates the owner or operator's conclusion that the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make an applicability finding for the source with regard to the relevant standard or other requirement. If applicable, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist

sources in making applicability determinations under section 112 of the Act, if any. The requirements to determine applicability of a standard under §63.1(b)(3) and to record the results of that determination under this paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of—

- (1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
- (2)-(4) [Reserved]
- (5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
- (6) The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);
- (7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
- (8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (9) [Reserved]
- (10) The nature and cause of any malfunction (if known);
- (11) The corrective action taken or preventive measures adopted;
- (12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (13) The total process operating time during the reporting period; and
- (14) All procedures that are part of a quality control program developed and implemented for CMS under §63.8(d).
- (15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in §63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

- (1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in §63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).
- (2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under §63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or

the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under §63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under §63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5)(i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see §63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures

specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in §63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems—*

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) *Reporting results of continuous monitoring system performance evaluations.*

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under §63.8(e), simultaneously with the results of the performance test required under §63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under §63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under §63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when—

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of §63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this

section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;
- (B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and
- (C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §§63.8(c)(7) and 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one

summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a

performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under §63.6(i), any required compliance progress report or compliance status report required under this part (such as under §§63.6(i) and 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she—

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§63.11 Control device and work practice requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in §63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.*

- (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.
- (2) Flares shall be steam-assisted, air-assisted, or non-assisted.
- (3) Flares shall be operated at all times when emissions may be vented to them.
- (4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.
- (5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{\max} , as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{g\text{-mole}}{scm} \right) \left(\frac{MJ}{kcal} \right)$$

$K = \text{Constant} =$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H_i = Net heat of combustion of sample component i , kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{\max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{\max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8)/31.7$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{\max} . The maximum permitted velocity, V_{\max} , for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 + 0.708(H_T)$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.

(1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dir} = (E_{std}) \sum_{i=1}^4 \chi_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §63.177 or §63.178, whichever is applicable.

(3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.

(5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from—

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)(1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate state agency of any state to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain federal or state reporting requirement. Any information required to be submitted electronically by this part via the EPA's CEDRI may, at the discretion of the delegated authority, satisfy the requirements of this paragraph. The Administrator may permit all or some of the information to be submitted to the appropriate state agency only, instead of to the EPA and the state agency with the exception of federal electronic reporting requirements under this part. Sources may not be exempted from federal electronic reporting requirements.

§63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional offices. If a request, report, application, submittal, or other communication is required by this part to be submitted electronically via the EPA's CEDRI then such submission satisfies the requirements of this paragraph (a).

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the Federal Register and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html. In addition, these materials are available from the following sources:

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742-2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(c) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §§ 63.111, 63.1402, 63.2406 and 63.7944.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (API MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§ 63.1251 and 63.12005.

(d) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air Conditioning Engineers Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992," IBR approved for §§ 63.11173(e) and 63.11516(d).

(2) [Reserved]

(e) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, <http://www.asme.org>; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413-5184, <http://global.ihs.com>.

(1) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§ 63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.997(e), 63.1282(d) and (g), and 63.1625(b), table 5 to subpart EEEE, §§ 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), and 63.5160(d), table 4 to subpart UUUU, table 3 to subpart YYYY, §§ 63.7822(b), 63.7824(e), 63.7825(b), 63.8000(d), 63.9307(c), 63.9323(a), 63.9621(b) and (c), 63.11148(e),

63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, and table 4 to subpart AAAAA, table 5 to subpart DDDDD, table 4 to subpart JJJJ, table 4 to subpart KKKKK, table 4 to subpart SSSSS, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZ, and table 4 to subpart JJJJJ.

(2) [Reserved]

(f) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

- (i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(f), § 63.626(f).
- (ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A - Volumetric Method, IBR approved for § 63.606(f), § 63.626(f).
- (iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B - Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f).
- (iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C - Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f).
- (v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A - Volumetric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).
- (vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B - Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f), and (g).
- (vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C - Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(2) [Reserved]

(g) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

- (1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).
- (6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(h) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959, Telephone (610) 832-9585, <http://www.astm.org>; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106-1346, Telephone (734) 761-4700, <http://www.proquest.com>.

(1) ASTM D95-05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(2) ASTM D240-09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.

(3) ASTM Method D388-05, Standard Classification of Coals by Rank, approved September 15, 2005, IBR approved for §§ 63.7575, 63.10042, and 63.11237.

(4) ASTM Method D396-10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IBR approved for § 63.10042.

(5) ASTM D396-10, Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for §§ 63.7575 and 63.11237.

(6) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(7) ASTM D975-11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for § 63.7575.

(8) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(9) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

(10) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(11) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for appendix A to subpart II.

(12) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IBR approved for §§ 63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).

(13) ASTM Method D1835-05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IBR approved for §§ 63.7575 and 63.11237.

(14) ASTM D1945-03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IBR approved for §§ 63.670(j), 63.772(h), and 63.1282(g).

(15) ASTM D1945-14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IBR approved for § 63.670(j).

(16) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b).

(17) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, 1994, IBR approved for §§ 63.11(b), 63.987(b), and 63.1412.

- (18) ASTM D1963-85 (Reapproved 1996), Standard Test Method for Specific Gravity of Drying Oils, Varnishes, Resins, and Related Materials at 25/25 °C, approved November 29, 1985, IBR approved for § 63.3360(c).
- (19) ASTM D2013/D2013M-09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (20) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.
- (21) ASTM D2111-10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures, approved June 1, 2015, IBR approved for §§ 63.3360(c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), and 63.4741(a).
- (22) ASTM D2216-05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IBR approved for the definition of "Free organic liquids" in § 63.10692.
- (23) ASTM D2234/D2234M-10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (24) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (25) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (26) ASTM D2369-10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IBR approved for §§ 63.3151(a), 63.3360(c), 63.3961(j), 63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4541(a), and 63.4561(j), appendix A to subpart PPPP, and §§ 63.4741(a), 63.4941(a) and (b), 63.4961(j), and 63.8055(b).
- (27) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).
- (28) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).
- (29) ASTM D2697-86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.3521(b), and 63.5160(c).
- (30) ASTM D2697-03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), 63.4941(b), and 63.8055(b).
- (31) ASTM D2879-83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, Approved November 28, 1983, IBR approved for §§ 63.111, 63.1402, 63.2406, 63.7944, and 63.12005.
- (32) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IBR approved for §§ 63.111, and 63.12005.
- (33) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for § 63.1329(c).
- (34) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).

- (35) ASTM D2908-91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).
- (36) ASTM D2908-91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for § 63.1329(c).
- (37) ASTM D2908-91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for § 63.1329(c).
- (38) ASTM D2986-95A, "Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test," approved September 10, 1995, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.
- (39) ASTM D3173-03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (40) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).
- (41) ASTM D3370-76, Standard Practices for Sampling Water, Approved August 27, 1976, IBR approved for § 63.1329(c).
- (42) ASTM D3370-95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for § 63.1329(c).
- (43) ASTM D3370-07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for § 63.1329(c).
- (44) ASTM D3370-08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for § 63.1329(c).
- (45) ASTM D3370-10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for § 63.1329(c).
- (46) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§ 63.772(h) and 63.1282(g).
- (47) ASTM D3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e).
- (48) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A to subpart II.
- (49) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (50) ASTM D3960-98, Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings, approved November 10, 1998, IBR approved for §§ 63.3360(c) and 63.8055(b).
- (51) ASTM D4006-11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (52) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (53) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.

- (54) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (55) ASTM D4057-06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (56) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (57) ASTM D4084-07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (58) ASTM D4177-95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (59) ASTM D4208-02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.
- (60) ASTM D4239-14e1, "Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion," approved March 1, 2014, IBR approved for § 63.849(f).
- (61) ASTM D4256-89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (62) ASTM D4256-89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (63) ASTM D4606-03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (64) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b).
- (65) ASTM D4840-99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IBR approved for appendix A to part 63.
- (66) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§ 63.772(h) and 63.1282(g).
- (67) ASTM D5066-91 (Reapproved 2017), Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis, approved June 1, 2017, IBR approved for § 63.3161(g).
- (68) ASTM D5087-02, Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IBR approved for § 63.3165(e) and appendix A to subpart IIII.
- (69) ASTM D5192-09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IBR approved for table 6 to subpart DDDDD.
- (70) ASTM D5198-09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

- (71) ASTM D5228-92, Standard Test Method for Determination of Butane Working Capacity of Activated Carbon, (Reapproved 2005), IBR approved for § 63.11092(b).
- (72) ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for appendix A to subpart MMMM.
- (73) ASTM D5790-95 (Reapproved 2012), Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, Approved June 15, 2012, IBR approved for § 63.2485(h) and Table 4 to subpart UUUU.
- (74) ASTM D5864-11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IBR approved for table 6 to subpart DDDDD.
- (75) ASTM D5865-10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (76) ASTM D5954-98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IBR approved for table 6 to subpart DDDDD.
- (77) ASTM D5965-02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, approved June 1, 2013, IBR approved for §§ 63.3151(b) and 63.3951(c).
- (78) ASTM D6053-00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for appendix A to subpart MMMM.
- (79) ASTM D6093-97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.3521 and 63.5160(c).
- (80) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, approved December 1, 2016, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), and 63.4941(b).
- (81) ASTM D6196-03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IBR approved for appendix A to this part: Method 325A and Method 325B.
- (82) ASTM D6266-00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), approved July 1, 2017, IBR approved for § 63.3165(e).
- (83) ASTM D6323-98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (84) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2003, IBR approved for §§ 63.457(b), 63.997(e), and 63.1349, table 4 to subpart DDDD, table 5 to subpart EEEE, table 4 to subpart UUUU, table 4 subpart ZZZZ, and table 8 to subpart HHHHHH.
- (85) ASTM D6348-03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IBR approved for §§ 63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), 63.7142(a) and (b), tables 4 and 5 to subpart JJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.

(86) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IBR approved for §§ 63.997(e), 63.1571(a), and 63.2354(b), table 5 to subpart EEEE, table 4 to subpart UUUU, §§ 63.7142(a) and (b) and 63.8000(d), and table 4 to subpart SSSS.

(87) ASTM D6350-98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IBR approved for table 6 to subpart DDDDD.

(88) ASTM D6357-11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IBR approved for table 6 to subpart DDDDD.

(89) ASTM D6376-10, "Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy," Approved July 1, 2010, IBR approved for § 63.849(f).

(90) [Reserved]

(91) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(92) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (Approved October 1, 2004), IBR approved for §§ 63.457(b), 63.772(a), 63.772(e), 63.1282(a) and (d), and table 8 to subpart HHHHHH.

(93) ASTM D6420-99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IBR approved for §§ 63.670(j), Table 4 to subpart UUUU, 63.7142(b), and appendix A to this part: Method 325B.

(94) ASTM D6420-18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 63.987(b), 63.997(e), and 63.2354(b), table 5 to subpart EEEE, and §§ 63.2450(j) and 63.8000(d).

(95) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c).

(96) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 4 to subpart ZZZZ, table 5 to subpart DDDDDD, table 4 to subpart JJJJJ, and §§ 63.772(e) and (h) and 63.1282(d) and (g).

(97) ASTM D6522-11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, Approved December 1, 2011, IBR approved for § 63.1961(a) and table 3 to subpart YYYY.

(98) ASTM D6721-01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IBR approved for table 6 to subpart DDDDD.

(99) ASTM D6722-01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IBR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJ.

- (100) ASTM D6735-01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources - Impinger Method, IBR approved for § 63.7142(b), tables 4 and 5 to subpart JJJJ, and tables 4 and 6 to subpart KKKK.
- (101) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IBR approved for §§ 63.7575 and 63.11237.
- (102) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), (Approved April 1, 2008), IBR approved for §§ 63.2465(d), 63.11646(a), and 63.11647(a) and (d) and tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD, tables 4 and 5 to subpart JJJJ, tables 4 and 6 to subpart KKKK, table 4 to subpart JJJJ, table 5 to subpart UUUUU, and appendix A to subpart UUUUU.
- (103) ASTM D6883-04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IBR approved for table 6 to subpart DDDDD.
- (104) ASTM D6886-18, Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography, approved October 1, 2018, IBR approved for § 63.2354(c).
- (105) ASTM D7430-11ae1, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IBR approved for table 6 to subpart DDDDD.
- (106) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for §§ 63.1625(b), table 3 to subpart LLLLL, 63.7823(c) through (e), and 63.7833(g).
- (107) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016, IBR approved for §§ 63.1625(b).
- (108) ASTM E145-94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for appendix A to subpart PPPP.
- (109) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).
- (110) ASTM E260-91, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).
- (111) ASTM E260-96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).
- (112) ASTM E515-95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i).
- (113) ASTM E711-87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (114) ASTM E776-87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IBR approved for table 6 to subpart DDDDD.
- (115) ASTM E871-82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (116) ASTM UOP539-12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IBR approved for § 63.670(j).

(i) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, <http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf>.

(1) "BAAQMD Source Test Procedure ST-30 - Static Pressure Integrity Test, Underground Storage Tanks," adopted November 30, 1983, and amended December 21, 1994, IBR approved for § 63.11120(a).

(2) [Reserved]

(j) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing - Bubble Emission Techniques, IBR approved for § 63.425(i).

(2) BS EN 14662-4:2005, Ambient air quality standard method for the measurement of benzene concentrations - Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IBR approved for appendix A to this part: Method 325A and Method 325B.

(k) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815, Telephone (916) 327-0900, <http://www.arb.ca.gov/>.

(1) Method 310, "Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds (ROC) in Aerosol Coating Products," amended May 25, 2018, IBR approved for § 63.8055(b).

(2) Method 428, "Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyle Emissions from Stationary Sources," amended September 12, 1990, IBR approved for § 63.849(a)(13) and (14).

(3) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for § 63.1625(b).

(4) California Air Resources Board Vapor Recovery Test Procedure TP-201.1 - "Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for § 63.11120(b).

(5) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E - "Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for § 63.11120(a).

(6) California Air Resources Board Vapor Recovery Test Procedure TP-201.3 - "Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for § 63.11120(a).

(l) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724-1128, and www.compositepanel.org.

(1) ANSI A135.4-2012, Basic Hardboard, approved June 8, 2012, IBR approved for § 63.4781.

(2) [Reserved]

(m) Environmental Protection Agency. Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.

(1) California Regulatory Requirements Applicable to the Air Toxics Program, November 16, 2010, IBR approved for § 63.99(a).

(2) New Jersey's Toxic Catastrophe Prevention Act Program, (July 20, 1998), IBR approved for § 63.99(a).

- (3) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a).
- (4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a).
- (5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)-(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. IBR approved for § 63.99(a).
- (6)
- (i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), IBR approved for § 63.99(a).
- (ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09, Env-A 1802.13, Env-A 1802.15-1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05-1803.09; and Appendices B, C, and D; IBR approved for § 63.99(a).
- (7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009. IBR approved for § 63.99(a).
- (8) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," IBR approved for §§ 63.11173(e) and 63.11516(d).
- (9) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, IBR approved for §§ 63.11173(e) and 63.11516(d).
- (10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, IBR approved for § 63.99(a).
- (11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. IBR approved for § 63.99(a).
- (12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at <http://www.legis.state.ak.us/basis/folio.asp>, IBR approved for § 63.6675.
- (13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5-253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for § 63.99(a).
- (n) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.
- (1) EPA-453/R-08-002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat, published September 2008, IBR approved for §§ 63.3130(c), 63.3161(d) and (g), 63.3165(e), and appendix A to subpart IIII.

- (2) EPA-453/R-01-005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants - Background Information for Proposed Standards, Final Report, January 2001, IBR approved for § 63.7491(g).
- (3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF>, IBR approved for §§ 63.548(e), 63.864(e), 63.7525(j), 63.8450(e), 63.8600(e), 63.9632(a), and 63.11224(f).
- (4) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF>, IBR approved for §§ 63.548(e), 63.864(e), 63.7525(j), 63.8450(e), 63.8600(e), 63.9632(a), 63.9804(f), and 63.11224(f).
- (5) EPA-454/R-99-005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, IBR approved for appendix A to this part: Method 325A.
- (6) EPA/600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for § 63.2163(b).
- (7) EPA-625/3-89-016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for § 63.1513(d).
- (8) SW-846-0011, Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources, Revision 0, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 4 to subpart DDDD.
- (9) SW-846-3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (10) SW-846-3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (11) SW-846-5030B, Purge-And-Trap For Aqueous Samples, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (12) SW-846-5031, Volatile, Nonpurgeable, Water-Soluble Compounds by Azeotropic Distillation, Revision 0, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (13) SW-846-7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (14) SW-846-7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (15) SW-846-8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960, 63.11980, and table 10 to subpart HHHHHH.

- (16) SW-846-8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHHHH.
- (17) SW-846-8260D, Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry, Revision 4, June 2018, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (18) SW-846-8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHHHH.
- (19) SW-846-8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960 and 63.11980, and table 10 to subpart HHHHHHHH.
- (20) SW-846-5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.
- (21) SW-846-6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (22) SW-846-6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (23) SW-846-7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (24) SW-846-7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (25) SW-846-9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (26) SW-846-9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (27) SW-846-9250, Chloride (Colorimetric, Automated Ferricyanide AAI), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.
- (28) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(29) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA-821-R-02-019, August 2002, IBR approved for table 6 to subpart DDDDD.

(o) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 6978-1:2003(E), Natural Gas - Determination of Mercury - Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(2) ISO 6978-2:2003(E), Natural gas - Determination of Mercury - Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(3) ISO 16017-2:2003(E): Indoor, ambient and workplace air - sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography - Part 2: Diffusive sampling, May 15, 2003, IBR approved for appendix A to this part: Method 325A and Method 325B.

(p) National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>.

(1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§ 63.457 and 63.459.

(2) NCASI Method CI/WP-98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IBR approved for table 4 to subpart DDDD.

(3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for § 63.459(b).

(4) NCASI Method IM/CAN/WP-99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IBR approved for table 4 to subpart DDDD.

(5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IBR approved for table 4 to subpart DDDD and §§ 63.4751(i) and 63.4752(e).

(q) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e).

(2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. (A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," Revision 2, dated August 2018, IBR approved for § 63.1208(b).

(ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IBR approved for § 63.7824(e).

(iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IBR approved for §§ 63.7700(b) and 63.7765.

(iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IBR approved for the definition of "Free organic liquids" in §§ 63.10692, 63.10885(a), and the definition of "Free liquids" in § 63.10906.

(v) SW-846 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)," February 2007, IBR approved for § 63.11647(f).

(3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods," NIOSH publication no. 94-113, Fourth Edition, August 15, 1994.

(i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IBR approved for § 63.7732(g).

(ii) [Reserved]

(r) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>, http://www.nerc.com/files/EOP0002-3_1.pdf.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, adopted August 5, 2010, IBR approved for § 63.6640(f).

(2) [Reserved]

(s) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332-8686, <http://www.tappi.org>.

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDDD.

(2) [Reserved]

(t) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711-3087, telephone number (512) 239-0028, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf.

(1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IBR approved for §§ 63.654(c) and (g), 63.655(i), 63.1086(e), 63.1089, 63.2490(d), 63.2525(r), and 63.11920.

(2) [Reserved]

§63.15 Availability of information and confidentiality.

(a) Availability of information.

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) Confidentiality.

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

§63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

- (1) Reduced its total HAP emissions to less than 25 tons per year;
- (2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
- (3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

- (1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of

HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

Table 1 to Subpart A of Part 63—Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^aWhen this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

**STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY**

In the Matter of the Intent to Reissue Air Individual
Permit Major Amendment Permit No. 03900028-102 Affidavit of Colin M. Campbell
Al-Corn Clean Fuel LLC

Colin M. Campbell, being duly sworn deposes and says as follows:

1. I am a Principal in the firm of RTP Environmental Associates, Inc. (“RTP”), an air quality consulting firm with offices in Raleigh, North Carolina and elsewhere. I have a Bachelor of Science degree in Economics and a Bachelor of Science degree in Mechanical Engineering, both conferred by North Carolina State University in 1991.

2. I have been employed by RTP since 1997. Prior to 1997, I worked in air quality consulting with Pacific Environmental Services and Woodward-Clyde Consultants. My experience in air quality consulting is primarily in the area of stationary source (*i.e.*, industrial) air pollution. Activities that I commonly perform on behalf of industrial source owners include the preparation of permit applications for new and modified facilities, evaluation of the effect of existing or proposed regulations on existing or new sources of air pollution; and assessments of compliance by existing sources of air pollution with federal, state and local requirements. I have had extensive experience in regard to advising clients in interpretation and compliance with regulations concerning air pollution, including the regulations of various state, local, and federal agencies governing the review of new and modified sources of air pollution. I also provide technical support to state and local agencies in developing and administering their stationary source permitting programs.

3. In addition, I frequently teach courses on NSR regulations for audiences including representatives of state permitting authorities such as the Minnesota Pollution Control Agency (“MPCA”), U.S. Environmental Protection Agency (“EPA”), and regulated entities.

4. A copy of my curriculum vitae is provided as Exhibit 1.

A. Background

5. Al-Corn Clean Fuel LLC (“Al-Corn”) owns and operates an ethanol production facility in Dodge County, Minnesota (the “Facility”). The Facility currently operates under Part 70 Permit No. 03900028-101 (the “Current Permit”) issued by MPCA.

6. MPCA has proposed to issue a renewed and modified Part 70 Permit for the Facility identified as Permit No. 03900028-102. This draft permit (the “Draft Permit”) and the Technical Support Document (the “TSD”) are the subject of my opinions expressed herein.

7. The Facility is not subject to the Prevention of Significant Deterioration (“PSD”) permitting program because it is not a major stationary source as that term is defined at 40 CFR § 52.21(b)(1), incorporated by reference at Minn. R. 7007.3000. The Facility would be a major stationary source if, for any pollutant subject to regulation under the PSD program, its potential to emit were to equal or exceed 250 tons per year, excluding fugitive emissions.

8. The Facility is not subject to certain National Emission Standards for Hazardous Air Pollutants (“NESHAP”), such as the NESHAP for Miscellaneous Organic Chemical

Manufacturing in 40 CFR part 63, subpart FFFF, because it is not a major source of hazardous air pollutants as those terms are defined at 40 CFR § 63.2. The Facility would be a major source of hazardous air pollutants if its potential to emit were to equal or exceed 10 tons per year of any individual hazardous air pollutant or 25 tons per year of hazardous air pollutants in the aggregate.

9. The Facility includes an emissions unit known as the fermentation system. This emissions unit comprises numerous process vessels and other equipment, including three fermenters identified as Fermenter #1 (“EQUI 31”), Fermenter #2 (“EQUI 32”), and Fermenter #3 (“EQUI 33”). The fermentation system emits Volatile Organic Compounds (“VOC”), which is a regulated air pollutant generally composed of many individual carbon-containing compounds. The primary constituent of the VOC emissions from the fermentation system is ethanol, which is the facility’s primary product. A scrubber, identified by MPCA as the Fermentation System Scrubber (“TREA 16”), is currently used to control emissions of VOC and to maintain compliance with limits on emissions of VOC and certain VOC constituents. A condenser, identified by MPCA as the Pre-Condenser (“TREA 42”), is used in conjunction with the scrubber primarily to improve recovery of ethanol and to improve the facility’s economic efficiency and secondarily to allow the Facility to achieve an overall VOC control efficiency greater than would be achieved using the Fermentation System Scrubber alone. Prior to installation of the Fermentation System Scrubber, Al-Corn used a different scrubber, identified by MPCA as the Old Fermentation Scrubber (“TREA 10”), to control emissions of VOC and to maintain compliance with limits on emissions of VOC and certain VOC constituents.

10. The Current Permit includes three conditions imposing numeric emission standards specific to VOC emissions from the fermentation system emissions unit. Condition 5.40.2 requires Al-Corn to limit VOC emission rate to 20.80 pounds per hour or less, based on a 3-hour average. Condition 5.54.3 requires either a minimum overall VOC control efficiency of 95.0 percent for the Old Fermentation Scrubber or, if the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is equal to or less than 200 parts per million by volume, a maximum VOC concentration of 20 parts per million by volume in the exhaust gases emitted to atmosphere from the scrubber. Condition 5.57.2 requires a minimum overall VOC control efficiency of 95.0 percent for the Fermentation System Scrubber.

11. In March 2003, Al-Corn's corporate predecessor entered into a judicial consent decree (the "2003 Consent Decree") with the United States and MPCA. The 2003 Consent Decree obligated Al-Corn to implement a control technology plan including, among other things, installation of air pollution control technology for the fermentation system that was capable of achieving a 95 percent reduction in VOC emissions or, if the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is less than 200 parts per million by volume, a maximum VOC concentration of 20 parts per million by volume in the exhaust gases emitted to atmosphere from the scrubber. The 2003 Consent Decree further obligated Al-Corn to submit to MPCA a modification of its air permit to incorporate certain emission limits and other requirements from the decree, including the minimum VOC control efficiency requirement described above. One of the conditions precedent to termination of the 2003

Consent Decree was Al-Corn's compliance with emission limits under the decree, including the minimum VOC control efficiency requirement described above.

12. A copy of the 2003 Consent Decree, which was obtained for me by Michael Best and Friedrich from the National Archives Chicago Federal Records Center, is provided as Exhibit 2.

13. The 2003 Consent Decree was terminated in December 2005. The only provision of the 2003 Consent Decree that survives termination of the consent decree is the resolution of claims, in which the plaintiffs granted to Al-Corn a release of all civil and administrative liability relating to certain alleged pre-entry violations of federal and state air quality control laws.

14. A copy of the termination order, which I obtained from PACER, is provided as Exhibit 3.

15. MPCA's authority to impose emission limitations and standards in a Part 70 Permit is narrow. As pertinent here, Minn. R. 7007.0800, subpart 2, item A authorizes MPCA to include in the permit all provisions "needed to ensure compliance with all applicable requirements at the time of permit issuance." Minn. R. 7007.0100, subpart 7, establishes the requirements that are applicable requirements.

16. Under Minn. R. 7007.0800, subpart 1, in a Part 70 Permit, MPCA is obligated to "specify and reference the origin of and the authority for each term or condition" and to "identify any difference in form from the requirement giving rise to the condition."

17. Under Minn. R. 7007.0850, subpart 1, in conjunction with issuing a Part 70 Permit, MPCA is obligated to develop and distribute a technical support document that “sets forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.”

18. Because the 2003 Consent Decree was terminated in December 2005, and because the provisions of a terminated consent decree do not fall within the definition at Minn. R. 7007.0100, subpart 7, the 2003 Consent Decree does not establish a basis for any ongoing requirements, whether relating to VOC emissions from the fermentation system emissions unit or otherwise.

19. In its application for renewal and modification of the Current Permit, Al-Corn did not request deletion or substantive revision of the numeric VOC emission standards currently in effect for the fermentation system emissions unit as described in ¶ 10 above. Al-Corn also did not request that MPCA establish new or more stringent numeric VOC emission standards for the fermentation system emissions unit.

20. Condition 5.1.25 of the Draft Permit provides that, “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 provision is appropriate and consistent with EPA policy and federal regulations governing state air pollution control programs. For example, 40 CFR § 51.212(c) provides, “[f]or the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any [emission] standard,” the state rule “must not

preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.”

21. I have attached two EPA letters dated October 30, 1998 (Exhibit 4) and July 28, 1998 (Exhibit 5), respectively, discussing the limitations on states issuing operating permits, such as the Draft Permit, with permit terms and conditions that would nullify the credible evidence rule.

B. Unauthorized Minimum Control Efficiency Requirements for Emissions of Volatile Organic Compounds from Fermentation System Scrubber

22. In the Draft Permit, MPCA has proposed to continue the currently effective numeric VOC emission standards described in ¶ 10 above without substantive revision. Condition 5.43.2 requires Al-Corn to limit VOC emission rate to 20.80 pounds per hour or less, based on a 3-hour average. Condition 5.68.7 requires either a minimum overall VOC control efficiency of 95.0 percent or, if the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is less than 200 parts per million by volume, a maximum VOC concentration of 20 parts per million by volume in the exhaust gases emitted to atmosphere from the scrubber.

23. In my opinion, because Al-Corn did not request deletion or revision of the currently effective numeric VOC emission standards described in ¶ 10 above, continuation of those limits in the Draft Permit as described in ¶ 22 above is appropriate.

24. In the Draft Permit, MPCA has proposed to establish additional, numeric VOC emission standards that are more stringent than those in ¶ 10 above. Condition 5.68.5, which would apply during periods when the Fermentation System Scrubber is operating with normal water flow rate and normal scrubber additive liquid flow rate, would require Al-Corn continuously to achieve a minimum overall VOC control efficiency of 99.5 percent when the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is less than 200 parts per million by volume. Condition 5.68.6, which would apply during periods when the Fermentation System Scrubber is operating with reduced water flow rate and reduced scrubber additive liquid flow rate, would require Al-Corn continuously to achieve a minimum overall VOC control efficiency of 99.7 percent when the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is less than 200 parts per million by volume.

25. As discussed in the following paragraphs of this affidavit, I cannot determine what the MPCA is relying upon as the purported legal authority or factual basis for Conditions 5.68.5 and 5.68.6 of the Draft Permit. Accordingly, I cannot determine with confidence whether and how achievability should be taken into account in determining the appropriateness of these emission standards. Nonetheless, in my opinion, the emission standards in Conditions 5.68.5 and 5.68.6 of the Draft Permit are not achievable from a technical standpoint. When the VOC concentration in the gas stream from the fermentation system as measured upstream of the scrubber is equal to 200 parts per million by volume, Conditions 5.68.5 and 5.68.6 of the Draft Permit would limit the maximum VOC concentration in the exhaust gases emitted to atmosphere from the

scrubber to approximately 1 part per million by volume. This outlet VOC concentration is not achievable with a scrubber.

26. In my opinion, with respect to the VOC emission standards in Conditions 5.68.5 and 5.68.6 of the Draft Permit, MPCA has failed to satisfy its obligations under Minn. R. 7007.0800, subpart 1, and Minn. R. 7007.0850, subpart 1. The only authority cited by MPCA in the Draft Permit for each of these conditions is, “Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000.” This suggests that a control efficiency less than 99.5 percent for VOC emissions in the gas stream from the fermentation system emissions unit would result in the Facility’s non-fugitive VOC emissions exceeding the major stationary source threshold of 250 tons per year. This is unsupported and erroneous. The potential non-fugitive VOC emissions from all emissions units other than the fermentation system emissions unit are less than 90 tons per year. Only if the mass flow rate of VOC in the gas stream from the fermentation system as measured upstream of the scrubber were to exceed 7,300 pounds per hour on an annual average basis would this be true, and there is no evidence in MPCA’s administrative record to support this conclusion. In the TSD, MPCA provides no calculations or other evidence in support of the proposed minimum VOC control efficiency requirements in Conditions 5.68.5 and 5.68.6 of the Draft Permit.

27. In my opinion, Conditions 5.68.5 and 5.68.6 of the Draft Permit should be omitted from the final issued permit because they are not applicable requirements, are not needed to ensure compliance with all applicable requirements, and are not necessary to maintain the Facility’s potential non-fugitive VOC emissions less than the applicable major stationary source threshold at 40 CFR § 52.21(b)(1).

28. In the TSD, MPCA includes a discussion styled as, “Revised BACT-equivalent Analysis for Fermentation Units.” It is not clear to me whether this discussion is intended to support the proposed minimum VOC control efficiency requirements in Conditions 5.68.5 and 5.68.6 of the Draft Permit. In my opinion, to the extent that it is so intended, the discussion provides no such support. The apparent premise for this discussion—that the Facility is somehow different from other stationary sources and is subject to requirements not derived from federal or Minnesota regulations because it was once the subject of a consent decree—is a fiction. From the date of termination of the 2003 Consent Decree in December 2005 through the present, the only emission limitations and standards to which the Facility is subject are those that are expressly required by applicable requirements as set forth in Minn. R. 7007.0100, subpart 7.

29. Even if there were some statutory or regulatory authority or some factual basis for MPCA to establish stringent minimum VOC control efficiency requirements for the fermentation system emissions unit based on a “BACT-equivalent analysis,” which there is not, that underlying authority would necessarily incorporate achievability as an important consideration. The Best Available Control Technology (“BACT”) requirement that is a key element of the PSD program under the federal Clean Air Act expressly provides that BACT emission limits be achievable for the particular Facility. 42 U.S.C. § 7479(3). In practice, this requires that emission limits be set with a compliance margin so that compliance can be achieved continuously, under all anticipated operating conditions, for the life of the Facility. As explained in ¶ 25 above, the proposed minimum VOC control efficiency requirements in Conditions 5.68.5 and 5.68.6 of the Draft Permit are not achievable.

C. Unauthorized Minimum Control Efficiency Requirements for Emissions of Hazardous Air Pollutants from Fermentation System Scrubber

30. In Conditions 5.68.8 through 5.68.16 of the Draft Permit, MPCA has proposed to establish new, numeric emission standards for formaldehyde, acrolein, methanol, and acetaldehyde emissions from the fermentation system emissions unit. Each of these organic compounds is a constituent of VOC and also a hazardous air pollutant.

Specifically, these permit conditions would require Al-Corn continuously to achieve a minimum overall control efficiency for each organic compound: for formaldehyde, 95.0 percent; for acrolein, 95.0 percent; for methanol, 96.0 percent; for acetaldehyde, 98.0 percent when the Fermentation System Scrubber is operating with normal water flow rate and normal scrubber additive liquid flow rate or 50.0 percent when the Fermentation System Scrubber is operating with reduced water flow rate and reduced scrubber additive liquid flow rate.

31. In my opinion, with respect to the emission standards for individual organic compounds in Conditions 5.68.8 through 5.68.16 of the Draft Permit, MPCA has failed to satisfy its obligations under Minn. R. 7007.0800, subpart 1, and Minn. R. 7007.0850, subpart 1. The primary authority cited by MPCA in the Draft Permit for each of these conditions is, “Avoid major source under 40 CFR 63.2.” This suggests that control efficiencies less than the listed values for the gas stream from the fermentation system emissions unit, for any period of time, would result in the Facility’s emissions exceeding the major source thresholds of 10 tons per year of an individual hazardous air pollutant or 25 tons per year of hazardous air pollutants in the aggregate. This is unsupported and erroneous; there is no evidence in MPCA’s administrative record to support this conclusion. The potential emissions of these pollutants would be subject to enforceable

limits in other conditions of the Draft Permit, particularly Conditions 5.3.1 through 5.3.3 of the Draft Permit, which are sufficient to ensure the Facility's emissions are less than the pertinent thresholds. In the TSD, MPCA provides no calculations or other evidence in support of the proposed minimum control efficiency requirements in Conditions 5.68.8 through 5.68.16 of the Draft Permit.

32. The second authority cited by MPCA in the Draft Permit for each of these conditions is, "Minn. R. 7007.0800, subp. 11." This rule provision merely authorizes MPCA to include in a Part 70 Permit the separate applicable requirements that apply to an emissions unit under two or more alternative operating scenarios. MPCA has correctly identified the operation of the Fermentation System Scrubber with normal or reduced flow rates as representing two separate operating scenarios, but this rule provision does not provide independent authority for imposing permit conditions that are not applicable requirements as defined at Minn. R. 7007.0100, subpart 7.

33. The third authority cited by MPCA in the Draft Permit for each of these conditions is, "Minn. R. 7017.2025, subp. 3(B)." This rule provision merely authorizes MPCA to include in a Part 70 Permit operational limitations, such as a maximum allowable production rate for the fermentation process emissions unit, to demonstrate that ongoing operations are not conducted under higher-emitting conditions than the operating conditions during performance (i.e., emissions measurement) testing. That is contrary to what would be achieved if Conditions 5.68.8 through 5.68.16 of the Draft Permit were included in the final permit issued to the Facility: As the emission rate at the control device inlet decreases, demonstrating compliance with a minimum control efficiency requirement becomes progressively more difficult and progressively less necessary to

comply with the applicable requirement. As a hypothetical example, using methanol emissions from the fermentation system emissions unit to illustrate: If a future performance test shows that the methanol emission rate at the control device inlet is exactly 0.0668 pounds per hour, as assumed by MPCA, and that the control efficiency actually being achieved for methanol emissions is 95.0 percent rather than the listed value of 96.0 percent, but the fermentation system emissions unit has been idle for 20 percent of available operating hours during the preceding 12-month period, then methanol emissions to the atmosphere from the Fermentation System are 0.293 tons per year, precisely as assumed by MPCA. Alternatively, if a future performance test shows that the methanol emission rate at the control device inlet is 0.0534 pounds per hour, which is 20 percent less than the value assumed by MPCA, and that the control efficiency actually being achieved for methanol emissions is 95.0 percent rather than the listed value of 96.0 percent, then methanol emissions to the atmosphere from the Fermentation System are equal to or less than the annual rate of 0.293 tons per year assumed by MPCA.

34. In my opinion, the minimum control efficiency requirements in Conditions 5.68.8 through 5.68.16 of the Draft Permit should be omitted from the final issued permit because they are not applicable requirements, are not needed to ensure compliance with all applicable requirements, and are not necessary to maintain the Facility's potential emissions of hazardous air pollutants less than the applicable major source threshold at 40 CFR § 63.2.

D. Inappropriate Restrictions on Use of Credible Evidence

35. The Draft Permit includes numerous conditions which would provide that for certain emissions units, while operating outside specified ranges for certain operating

parameters, “the emissions during that time shall be considered uncontrolled until” the specified operating condition is restored. In only one of these conditions—Condition 5.54.1, which applies to periods when emissions normally routed to a control device known as the Regenerative Thermal Oxidizer (“TREA 25”) are instead routed to a bypass stack—is the operating condition narrowly circumscribed so as to warrant a presumption of zero emission control effectiveness. As explained in the following paragraphs, the remaining seventeen conditions are inconsistent with Condition 5.1.25 and EPA’s Credible Evidence Rule. In my opinion, each of these conditions should be revised to remove the blanket presumption of zero emission control effectiveness.

36. Conditions 5.65.26 and 5.67.21 of the Draft Permit, pertaining to flares (“TREA 3” and “TREA 15”) used to control VOC emissions, provide that VOC emissions shall be considered uncontrolled during periods when there are visible emissions from the flare. This presumption is entirely without technical support. Although it is common on a national basis to restrict visible emissions from flares, these requirements have nothing to do with VOC emissions. As explained by EPA, “Smoking flares are environmentally less desirable because they emit particulate.” *VOC Fugitive Emissions in Synthetic Organic Chemicals Manufacturing Industry—Background Information for Promulgated Standards* (EPA-450/3-80-033b), EPA, Research Triangle Park, NC, June 1982, at 4-6.¹ Indeed, to the contrary, based on testing of flares used for control of VOC emissions, EPA concluded, “Smoking flares achieve high gaseous hydrocarbon destruction efficiencies.” *Flare Efficiency Study* (EPA-600/2-83-052), EPA, Research Triangle Park,

¹ Available on the EPA internet web site at <https://nepis.epa.gov/Exec/QueryPDF.cgi/P1004XRZ.PDF?Dockkey=P1004XRZ.PDF> (last accessed February 16, 2023).

NC, July 1983, at 5.² Therefore, in my opinion, the presumption of zero control effectiveness for VOC emissions during periods when visible emissions from a flare are observed is inappropriate and should be deleted from Conditions 5.65.26 and 5.67.21 in the final issued permit for the Facility.

37. Condition 5.66.11 and 5.74.7 of the Draft Permit, pertaining to thermal oxidizers used to control VOC emissions (“TREA 6” and “TREA 25” respectively), provide that VOC emissions shall be considered uncontrolled during periods when the 3-hour rolling average combustion chamber outlet temperature is less than the value measured during a recent performance test. This presumption is inappropriate: It is reasonable to expect that operation of a thermal oxidizer with a combustion chamber outlet temperature that is elevated, but less than the listed value, will be shown by credible evidence to achieve a non-zero VOC control efficiency. In my opinion, the presumption of zero control effectiveness for VOC emissions during periods when the 3-hour rolling average combustion chamber outlet temperature is below the listed values should be deleted from Conditions 5.66.11 and 5.74.7 in the final issued permit for the Facility. A more appropriate approach is that used by MPCA for the thermal oxidizers at the Flint Hills Resources Pine Bend Refinery (Facility 03700011)(“Pine Bend Refinery”). For each of the thermal oxidizers used to control VOC emissions from rail loading of gasoline (“TREA 61”) and an oil/water separator (“TREA 62”), the Part 70 Permit for the Pine Bend Refinery establishes a minimum temperature and requires continuous temperature monitoring just as in the Draft Permit for the Facility, and requires prompt corrective

² Available on the EPA internet web site at <https://nepis.epa.gov/Exec/QueryPDF.cgi/P1003QGZ.PDF?Dockey=P1003QGZ.PDF> (last accessed February 16, 2023).

action following an excursion from the minimum temperature just as in the Draft Permit for the Facility. However, the Part 70 Permit for the Pine Bend Refinery does not establish a presumption regarding VOC control efficiency, thus allowing other credible evidence to be used to establish compliance or noncompliance with applicable VOC emission standards.

38. Conditions 5.69.2, 5.70.7, 5.71.4, 5.72.4, 5.73.5, 5.75.4, 5.79.1, 5.80.1, 5.81.4, and 5.82.4 of the Draft Permit, each pertaining to a fabric filter used to control PM emissions (“TREA 17,” “TREA 18,” “TREA 19,” “TREA 21,” “TREA 23,” “TREA 26,” “TREA 36,” “TREA 37,” “TREA 38,” and “TREA 39,” respectively), provide that PM emissions shall be considered uncontrolled during periods when the pressure drop across the filter is outside a specified range. Condition 5.71.10, pertaining to one of these fabric filters used to control PM emissions (“TREA 19”), provides that PM emissions shall be considered uncontrolled during the entirety of any calendar day when visible emissions are observed, no matter how short the duration of such period of visible emissions. These presumptions are inappropriate: It is reasonable to expect that operation of a fabric filter with non-zero visible emissions or with pressure drop outside the listed range will be shown by credible evidence to achieve a non-zero PM control efficiency. In my opinion, the presumptions of zero control effectiveness for PM emissions during the specified periods should be deleted from each of the listed conditions in the final issued permit for the Facility. A more appropriate approach is that used by MPCA for the fabric filters at the 3M Cottage Grove Abrasive Systems Division (Facility 16300017)(“3M Abrasives Facility”). For each of these fabric filters, the Part 70 Permit for the 3M Abrasives Facility establishes a pressure drop range and requires periodic monitoring of pressure

drop and periodic stack observations to check for visible emissions, just as in the Draft Permit for the Facility, and requires prompt corrective action following an excursion from the pressure drop range or observation of visible emissions, just as in the Draft Permit for the Facility. However, the Part 70 Permit for the 3M Abrasives Facility does not establish a presumption regarding PM control efficiency, thus allowing other credible evidence to be used to establish compliance or noncompliance with applicable PM emission standards.

39. Conditions 5.68.20 through 5.68.22 and 5.68.24 of the Draft Permit, pertaining to the Fermentation System Scrubber, provides that VOC emissions from the fermentation system emissions unit shall be considered uncontrolled during periods when the flow rate of either water or chemical additive is less than the corresponding value measured during a recent performance test or the pressure drop is outside the corresponding range measured during a recent performance test. These presumptions are inappropriate: It is reasonable to expect that, provided the water flow rate and pressure drop are greater than zero, operation of a scrubber with water and/or chemical flow rates that are less than the listed values or pressure drop is outside the listed range will be shown by credible evidence to achieve a non-zero VOC control efficiency. In my opinion, even in the absence of the additional concerns described in ¶ 42 below, the presumption of zero control effectiveness for VOC emissions during periods when these parameters are outside the listed ranges should be deleted from Conditions 5.68.20 through 5.68.22 and 5.68.24 in the final issued permit for the Facility. A more appropriate approach is that used by MPCA for the scrubbers (“CE 004” and “CE 005”) at the 3M Cottage Grove Corporate Incinerator (Facility 16300025)(“3M Corporate Incinerator”). For these

scrubbers, the Part 70 Permit for the 3M Corporate Incinerator establishes a minimum water flow rate, maximum acidity level (functionally comparable to the minimum chemical additive flow rate), and maximum pressure drop and requires periodic monitoring of operational parameters, just as in the Draft Permit for the Facility. However, the Part 70 Permit for the 3M Corporate Incinerator does not establish a presumption regarding scrubber control efficiency, thus allowing other credible evidence to be used to establish compliance or noncompliance with applicable emission standards.

40. It would be impossible to comply with the Draft Permit if it were issued in its current form. Condition 5.83.4 of the Draft Permit, pertaining to TREA 42, requires that the condenser water flow rate be maintained at a rate equal to or greater than 45.0 gallons per minute. The same permit condition provides that VOC emissions from the fermentation system emissions unit shall be considered uncontrolled during periods when the condenser water flow rate “is above the maximum flow rate limit.” The latter provision is based upon an entirely irrational presumption, as ethanol recovery efficiency in the condenser increases, not decreases, with greater condenser water flow rate. In my opinion, this presumption should be deleted from Condition 5.83.4 in the final issued permit for the Facility.

41. It is possible that use of the term “above the maximum” in Condition 5.83.4 in the Draft Permit represents a scrivener’s error and that MPCA intended to adopt a presumption that VOC emissions from the fermentation system emissions unit shall be considered uncontrolled during periods when the condenser water flow rate is less than the listed value. In my opinion, this presumption also would be inappropriate: It is reasonable to expect that, provided the water flow rate is greater than zero, operation of

the condenser with water flow rate that is less than the listed value will be shown by credible evidence to achieve a non-zero ethanol recovery efficiency. In my opinion, even in the absence of the additional concerns described in ¶ 42 below, the presumption of zero ethanol recovery during periods when the condenser water flow rate is below the listed value should be deleted from Condition 5.83.4 in the final issued permit for the Facility. A more appropriate approach is that used by MPCA for the quench chamber (“CE 010”) at the 3M Corporate Incinerator. The CE 010 quench chamber is functionally similar to TREA 42 in that it operates by lowering the temperature of the exhaust gas stream upstream of a scrubber. For quench chamber CE 010, the Part 70 Permit for the 3M Corporate Incinerator establishes a minimum water flow rate and requires periodic monitoring of operational parameters, just as in the Draft Permit for the Facility. However, the Part 70 Permit for the 3M Corporate Incinerator does not establish a presumption regarding control efficiency based on the operational status of the quench chamber, thus allowing other credible evidence to be used to establish compliance or noncompliance with applicable emission standards.

42. As discussed in ¶ 9 above, the TREA 42 condenser operates in series with the Fermentation System Scrubber. Each apparatus removes VOC from the gas stream exiting the fermentation system; operation of the condenser in conjunction with the Fermentation System Scrubber allows the Facility to achieve an overall VOC control efficiency greater than would be achieved using the Fermentation System Scrubber alone. In addition to my opinions regarding inappropriateness as set forth in ¶¶ 39 and 41 above, the presumptions in Condition 5.68.20 through 5.68.22 and 5.83.4 of the Draft Permit are ambiguous. In particular, it is unclear whether MPCA intends to presume that the

Fermentation System Scrubber achieves zero VOC control efficiency only when the scrubber operating parameters are outside the established ranges, or also to adopt the presumption that the Fermentation System Scrubber achieves zero VOC control efficiency merely because the TREA 42 condenser operating parameter is outside its established range. If the latter, then the presumption is even more plainly inappropriate, as it is indisputable that credible evidence would show the Fermentation System Scrubber achieves a non-zero VOC control efficiency when the scrubber is operating continuously in conformance with its established operating parameter ranges notwithstanding the operating condition of the TREA 42 condenser.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 21, 2023 at Pascagoula, Mississippi.

Colin M. Campbell

CURRICULUM VITAE – COLIN M. CAMPBELL

SUMMARY

As a Principal with RTP Environmental Associates, Inc., Colin Campbell provides expert training and consulting to regulatory agencies, private industry, and trade organizations in the field of stationary source air pollution control, permitting, and compliance. Representative engagements during his 30 years in this field include:

- Obtaining New Source Review (NSR) construction permits and title V operating permits for industrial facilities;
- Providing training to:
 - Local, State, and Federal air agency personnel on permitting requirements under the New Source Review (NSR) programs;
 - Attendees at RTP’s Advanced NSR Workshops (held 2-3 times per year);
 - Private companies regarding NSR permitting;
- Managing RTP’s efforts under the Arizona DEQ’s Accelerated Permits Processing Program, wherein RTP provides technical support to the state agency in processing NSR permit applications; and
- Serving as an expert witness in NSR-related litigation, such as enforcement actions, and in quasi-judicial proceedings such as administrative appeals of NSR permits.

Prior to joining RTP Environmental, Mr. Campbell held positions with Woodward-Clyde Consultants, providing air quality consulting services to private industry, and at Pacific Environmental Services, providing technical support to U.S. EPA in matters relating to Clean Air Act permitting program implementation.

POSITIONS HELD

1) Principal

October 1997 to Present
RTP Environmental Associates Inc.
304-A West Millbrook Road
Raleigh, NC 27609

As Principal with RTP Environmental Associates and manager of the firm’s North Carolina office, Colin Campbell provides expert training and consulting to private industry and to regulatory agencies in the field of air pollution control, permitting, and compliance.

Air Quality Permitting and Compliance

- Served as Project Manager and Lead Contractor for the Arizona Department of Environmental Quality's Accelerated Permits Processing Program, which allows applicants to reimburse the State for the cost of having an approved contractor review permit applications and draft and process permits. Project elements typically include critical review of the emission inventory; regulatory applicability analyses, including complex net emissions increase determinations under the NSR and Prevention of Significant Deterioration (PSD) programs; air pollution control technology reviews including Best Available Control Technology (BACT), Lowest Achievable Emission Rate (LAER), and case-by-case Maximum Achievable Control Technology (MACT); critical review of air quality impacts analyses, including National Ambient Air Quality Standards (NAAQS) and PSD increment conformance demonstrations; evaluation of visibility impacts in the Grand Canyon National Park and other mandatory federal Class I areas; analyses of impacts on soils and vegetation under the PSD program; critical review of Compliance Assurance Monitoring (CAM) plans; drafting the proposed permit and the accompanying engineering reviews and technical support documents; and reviewing and preparing responses to comments received from U.S. Environmental Protection Agency (EPA), Federal Land Managers, and the general public. Projects completed by Mr. Campbell include:
 - PSD and title V permits for a new, 150,000 barrel-per-day grassroots petroleum refinery. This was the first such facility ever permitted under a PSD program approved by EPA as part of a State Implementation Plan (SIP);
 - Retroactive PSD and title V permits for an existing steel mini-mill that had not been able to demonstrate compliance with its synthetic minor emission limits;
 - PSD and title V permits for two new, 400-megawatt coal-fired electric utility steam generating units that "netted out" of PSD review for NO_x and SO₂ by overcontrolling two existing coal-fired steam generating units. This was the first of several similar projects nationwide to use the netting approach to avoid PSD review for new coal-fired electric generating capacity;
 - PSD and title V permits for a proposed, greenfield Portland cement plant locating within a National Forest;
 - PSD, nonattainment NSR, and title V permits for a new cement kiln replacing three existing kilns; and
 - PSD and title V permits for several natural gas-fired, combined-cycle power plants.
- Provided technical support and expert testimony in support of PSD permits issued by the Utah Department of Environmental Quality for a proposed, 270-megawatt, coal-fired power plant using circulating fluidized bed technology and a proposed, 950-megawatt pulverized coal-fired power plant. Responsibilities prior to permit issuance included reviewing and assisting with development of proposed

Approval Order (i.e., permit) conditions and technical support documents, particularly with regard to proposed BACT determinations. Represented the Executive Director of Utah DEQ as an outside expert during the administrative appeals process, in adjudicatory hearings before the Utah Air Quality Board, providing testimony on all aspects of BACT applicability and BACT determinations, including the appropriateness of considering alternative electricity generating technologies as a control option.

- Managed RTP's efforts in providing expert support to the Arizona DEQ and the Clark County (NV) Department of Air Quality and Environmental Management in rulemaking efforts involving wholesale revisions of NSR permitting rules. Scope included reviewing current air permitting rules for possible improvements, making recommendations to agency management regarding NSR reform implementation and other improvements, leading stakeholder interaction, drafting rule revisions and stakeholder responses, and assisting the agencies in obtaining SIP approval from EPA Region 9.
- Led PSD permitting efforts for a grassroots, world-scale, Midwestern U.S. petroleum refinery with hydrogen-producing, carbon-capture-ready IGCC power plant. Responsibilities include all PSD technical analyses and regulatory applicability analyses.
- Led PSD permitting efforts for a grassroots, natural gas-based nitrogenous fertilizer manufacturing complex in Idaho. Responsibilities included all PSD technical analyses and regulatory applicability analyses, negotiation of permit terms, and testimony in defense against administrative appeal of permit.
- Provided non-testifying, consulting expert services for a Midwestern petroleum refinery in litigation with the United States regarding alleged PSD and NSPS violations. The alleged modifications were believed by the refinery and were treated by the state permitting authority as pollution control projects.
- Managed permitting efforts for a PAL permit, including Plantwide Applicability Limits for all regulated NSR pollutants, for a large automobile assembly plant in South Carolina. Subsequently managed permitting efforts for a PAL major modification, including a PSD permit, for the same facility. Responsibilities included all regulatory applicability analyses, development of required PAL compliance demonstration mechanisms, BACT analyses, and negotiation of permit terms.
- Led PSD permitting of a large municipal sewage sludge-fired, electric-generating, glass aggregate production facility in Detroit. Project included emission inventory preparation, regulatory applicability analyses, BACT analyses for multiple pollutants, multi-source air quality impacts analyses, development of compliance monitoring procedures, and extensive interaction with active environmental and citizens' groups.
- Prepared minor NSR construction permit applications for complex modernization and clean fuels projects at several domestic petroleum refineries. Project

elements included preparing emission estimates and complex netting analyses, identifying economical opportunities for creditable and contemporaneous emissions decreases, performing regulatory applicability analyses, negotiating permit terms, and coordinating permitting activities with Consent Decree compliance initiative.

- Conceived and successfully implemented a novel approach for revising the air permits for expansion of a petroleum refinery in Utah where the preconstruction NSR permitting process, not involving RTP, had resulted in unachievable emission limits intended to preclude applicability of nonattainment NSR and associated emission offset requirements. The revised approach required a demonstration that the refinery, located in an area designated nonattainment with respect to the NAAQS for PM_{2.5} (fine particulate matter), was a non-major source of PM_{2.5}. This strategy allowed the refinery owner to avoid the requirement for emissions offsets costing in excess of ten million dollars.
- Led PSD and title V permitting projects at chemical and pharmaceutical manufacturing facilities in Eastern and Southeastern U.S. Project elements included emission inventory preparation, regulatory analyses, BACT analyses, air quality impacts analyses, compliance assessment, development of compliance monitoring procedures, preparation of permit applications, and negotiation of permit terms.
- Led successful PSD permitting efforts for significant expansion of a fiber glass insulation manufacturing plant in Kansas. Project elements included emission inventory preparation, regulatory analyses, BACT analyses, air quality impacts analyses, compliance assessment, development of compliance monitoring procedures, preparation of permit application, and negotiation of permit terms.
- Provided technical support to owners and operators of coal- and natural gas-fired electric power plants in Arizona, agribusiness facilities in Idaho, and a sodium carbonate production plant in Wyoming in developing Best Available Retrofit Technology (BART), reasonable progress, and better-than-BART demonstrations under the Clean Air Act's Regional Haze program. Responsibilities included air pollution control technology evaluations, including assessment of technical feasibility and cost effectiveness; developing and commissioning site-specific photochemical grid modeling analyses to quantify potential reductions in anthropogenically-caused visibility impairment; and negotiating rule requirements under SIPs and a Federal Implementation Plan (FIP).
- Assisted electric utility and petroleum refinery clients in designing and implementing air permitting applicability review procedures for planned capital expenditures. Procedural documents for petroleum refinery clients includes unit-specific listing of upstream and downstream potential impacts; electronic link to production records to ensure continual updating of actual emissions baseline; and templates for documentation of non-applicability determinations. Implementation ensured minimal impact of applicability reviews on the capital approval processes while also minimizing enforcement liability for errant determinations.

- Provided technical support to counsel and led negotiation of air pollution control-related requirements in complex settlement negotiations for clients in the electric utility, glass container manufacturing, natural gas transmission, and petroleum refining industries alleged by the United States to have violated the requirement to obtain PSD or nonattainment NSR permits under the Clean Air Act for construction or modification of a major stationary source. Efforts led to favorable settlement terms embodied in judicially enforceable consent decrees and releases from civil liability for historical NSR violations.
- Provided both testifying and non-testifying (consulting) expert support for two publicly held utilities in defense of enforcement actions brought by EPA for alleged modifications at coal-fired power plants. Scope of expert testimony included the proper interpretation of NSR and NSPS applicability exclusions, particularly the exclusions for routine maintenance, repair, and replacement activities; project emissions increase and net emissions increase calculations; BACT applicability and timing; and both current and historical BACT determinations.
- Performed historical PSD/NSR applicability studies and NSR-avoidance permitting, including retroactive netting, for facilities in forest products and surface coating industries.

Air Quality Training

- Mr. Campbell has presented more than 400 days of in-depth training on NSR-related topics, to a cumulative total of more than 3,000 students, including personnel from all State air pollution control agencies in the U.S. Training course development and presentation activities include:
 - Assisted in initial preparation of, and continuing to provide support in periodic updating of, *Advanced New Source Review* training course offered by RTP Environmental. This training course provides a comprehensive review of federal PSD and nonattainment NSR regulatory provisions, interpretive guidance, and pertinent case law.
 - Co-presenter, approximately 2-3 times annually, of 4-day commercial version of the *Advanced New Source Review* training course offered by RTP Environmental. Attendees at these workshops typically include regulated industry representatives, attorneys in private practice, other air quality consultants, and representatives of Federal, State, and local agencies.
 - Co-presenter of 4-day version of the *Advanced New Source Review* training course specifically tailored for and presented to permitting agency personnel. Clients include Central States Air Resource Agencies (CENSARA), a group of nine state air pollution control agencies in the Midwest and the Plains; Lake Michigan Air Directors Consortium (LADCO), a group of six state air pollution control agencies in the Great Lakes region; Southeastern States Air Resource Managers (SESARM), a group of eight southeastern state air pollution control agencies; and individual state agencies; Western States Air Resources Council

(WESTAR), a group of fifteen western state air pollution control agencies; and EPA.

- Developed, on behalf of WESTAR and CENSARA, a comprehensive training course on BACT issues for state and local air pollution control agency personnel. This training course provides a thorough review of legislative history, statutory and regulatory provisions, interpretive guidance, and pertinent case law. The workshop also includes exercises to facilitate learning of complex BACT topics such as evaluating technical feasibility; identifying and evaluating environmental impacts; determining, weighing, and applying cost effectiveness and other measures of economic impacts for alternative air pollution control techniques; and establishing clear and enforceable emission limitations representing BACT.
- Co-presenter of 3-day BACT training course for state and local permitting agency personnel. Clients include CENSARA; LADCO; WESTAR; Mid-Atlantic Regional Air Management Association (MARAMA), an association of ten state and local air pollution control agencies; and Northeast States for Coordinated Air Use Management (NESCAUM), an association of eight state and local air pollution control agencies; and individual state agencies.
- Periodically prepare and present custom-designed air pollution control training courses, pertaining primarily to PSD and nonattainment NSR applicability issues, for private sector clients. Clients include regulated entities and trade associations in the petroleum refining, transportation, and marketing; oil and gas; electric generation; chemical manufacturing; portland cement; glass production; and wood products industries.

2) Assistant Project Engineer

October 1994 to October 1997

AECOM Technology Corp. (formerly Woodward-Clyde Consultants, Inc.)

Raleigh, NC 27604

As Assistant Project Engineer with Woodward-Clyde, Mr. Campbell was responsible for performing and managing air permitting and compliance projects including:

- Major nonattainment NSR permitting and PSD-avoidance permitting of a new non-recovery coke-making facility for an integrated Midwestern U.S. steel mill;
- Preparing Title V permit applications for an integrated chemical manufacturing facility in West Virginia and for synthetic fibers manufacturing plants in South Carolina;
- Coordinating air quality compliance activities for all southeastern and midwestern U.S. facilities for a large, multinational chemical manufacturer;
- Preparing retrospective NSR applicability analyses, including evaluation of claimed applicability exclusions and determination of net emissions increases, for several facilities acquired by a large wood products company.

3) Environmental Engineer

December 1991 to October 1994

John Wood Group plc (formerly Pacific Environmental Services, Inc.)

Research Triangle Park, NC 27709

As an Environmental Engineer with Pacific Environmental Services, Mr. Campbell provided technical support on various air quality programs implemented by EPA including:

- Planning and implementing a nationwide data gathering and compilation effort for emission test results in support of emission factor development;
- Reviewing and grading emission test results for categories of sources in the chemical, metallurgical, and mineral production industries;
- Developing emission factors and preparing updates to EPA's emission factor compilation ("AP-42") for categories of sources in the chemical, metallurgical, and mineral production industries;
- Performing air compliance inspections for stationary sources throughout the southeastern U.S., including such diverse facilities as coal-fired power plants, an integrated chemical and pharmaceutical manufacturing plant, kraft pulp mills, a plywood manufacturing plant, and a magnetic tape manufacturing plant; and
- Developing the Enhanced Monitoring rule, issued by EPA as a proposed rulemaking in 1993 and later codified as the Compliance Assurance Monitoring (CAM) rule.

EXPERT TESTIMONY

- Deposition and trial testimony on behalf of defendants in *United States v. Illinois Power Co.*, S.D. Ill., No. 99-833-MJR.
- Deposition testimony on behalf of defendant in *U.S. v Questar Gas Management Company*, D. Utah, No. 2:08-cv-00167-DAK.
- Deposition testimony and testimony at contested case hearing on behalf of Permittee *In the matter of the Prevention of Significant Deterioration (PSD) Air Quality Permit Application of Hyperion Energy Center – Hyperion Refining LLC. Permit # 28.0701-PSD.* Before the Board of Minerals and Environment, Department of Environment and Natural Resources.
- Deposition testimony on behalf of Permittee in File No. DAQ-27602-042, Commonwealth of Kentucky Environmental and Public Protection Cabinet, *Sierra Club, Valley Watch, Inc. and Save the Valley, Inc., Petitioners, v. Environmental and Public Protection Cabinet and Louisville Gas and Electric Company, Respondents.*
- Pre-filed testimony, deposition testimony, and testimony at contested case hearing on behalf of Permittee in File No. DAQ-41001-046, Commonwealth of Kentucky Energy and Environment Cabinet, *Sierra Club, Ursuline Sisters of Mount Saint*

- Joseph, and Valley Watch, Inc., Petitioners, v. Energy and Environment Cabinet and Cash Creek Generating, LLC, Respondents.*
- Deposition testimony on behalf of defendant in *AGC Flat Glass North America, Inc. v. Pilkington Group Limited, et al.* Commonwealth of Kentucky, Madison Circuit Court, Division 1. Civil Action No. 05-CI-656.
 - Deposition and hearing testimony on behalf of the Executive Secretary of the Utah Air Quality Board in Project Code: N2529-001, Before the Utah Air Quality Board, *In Re: Approval Order – the Sevier Power Company 270 MW Coal-Fired Power Plant, Sevier County.*
 - Pre-filed testimony and deposition testimony on behalf of Permittee in Case No. BER 2007-07-AQ, Before the Board of Environmental Review of the State of Montana, *In the Matter of: Southern Montana Electric Generation and Transmission Cooperative – Highwood Generating Station.*
 - Deposition testimony on behalf of defendants in *Sierra Club v. City of Holland, Michigan and Holland Board of Public Works*, W.D. Michigan, No. 1:08-cv-1183.
 - Pre-filed testimony on behalf of Permittee in Consolidated SOAH Docket No. 582-08-0861, Before the Texas State Office of Administrative Hearings, *Application of NRG Texas Power LLC for State Air Quality Permit 79188 and Prevention of Significant Deterioration Air Quality Permit PSD-TX-1072 and Hazardous Air Pollutant Major Source [FCAA § 112(g)] Permit HAP-14.*
 - Deposition testimony in *Louisiana Generating LLC and NRG Energy, Inc., v. Illinois Union Insurance Company*, No. 3:10-cv-00516, M.D. La.
 - Affidavit in *United States et al. v. DTE Energy Co. et al.*, No. 2:10-cv-13101-BAF, E.D. Mi.
 - Deposition testimony on behalf of defendants in *Invista B.V. et al. v. E.I. duPont de Nemours & Co., Inc.*, S.D. N.Y., No. 08-cv-3063 (SHS).
 - Testimony at contested case hearing on behalf of Permittee in SOAH Docket No. 582-13-5205; TCEQ Docket No. 2013-1191-AIR, *Application of Corpus Christi Liquefaction, LLC for Air Quality Permit Nos. 105710 and PSDTX1306, for the Construction of a Natural Gas Liquefaction and Export Terminal with Regasification Capabilities, in San Patricio County, Texas.*
 - Deposition testimony in *In the Matter of Air Quality Permit to Construct No. P-2013.0030 Issued to Magnolia Nitrogen Idaho LLC: Conagra Foods Lamb Weston, Inc. v. Idaho Dept. of Environmental Quality and Magnolia Nitrogen Idaho LLC*, Docket No. 0101-14-01, Before the Idaho Board of Environmental Quality.
 - Deposition and trial testimony on behalf of defendants in *United States v. Westvaco Corporation*, D. Md., No. MJG-00-2602.
 - Trial testimony on behalf of defendant in *Unitek Solvent Services, Inc., v. Chrysler Group LLC*, D. Hawaii, Civil No. 12-00704.

- Hearing testimony in *In the Matter of: El Dorado Chemical Company*, Docket No. 13-008-P, before the Arkansas Pollution Control & Ecology Commission.
- Deposition and trial testimony on behalf of defendants in *United States et al. v. Ameren Missouri*, E.D. Mo., No. 4:11-cv-00077-RWS.
- Testimony at technical hearing on behalf of Applicant in Docket No. 6630-CE-305, Before the Public Service Commission of Wisconsin, *Application of Wisconsin Electric Power Company for a Certificate of Authority to Construct and Place in Operation a 50 MW Biomass-Fueled Co-generation Facility to be Located in the Village of Rothschild in Marathon County*.
- Trial testimony on behalf of plaintiff in *Salt River Project Agricultural Improvement and Power District v. Arizona Corporation Commission, et al.*, Superior Court of Maricopa County (AZ), Case No. CV2022-008624.

RECENT PUBLICATIONS

- *Law of Environmental Protection*, Vol. 2, Part XI, “New Source Review” (Environmental Law Inst. 2022).

ACADEMIC TRAINING AND EDUCATION

Degree: Bachelor of Science in Mechanical Engineering
Institution: North Carolina State University
Date: May 1991

Degree: Bachelor of Science in Economics
Institution: North Carolina State University
Date: December 1991

PROFESSIONAL ACTIVITIES

- Member, Air and Waste Management Association, since 1997.

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Civil Action Number:

CV 02-3792

UNITED STATES,
PLAINTIFF, and the

STATE OF MINNESOTA, BY ITS
MINNESOTA POLLUTION CONTROL
AGENCY,
Plaintiff-Intervenor,

v.

AL-CORN CLEAN FUEL COOPERATIVE,
AND
AL-CORN CLEAN FUEL LIMITED
PARTNERSHIP,
Defendants.

CONSENT DECREE

8

MAR 07 2003

FILED
RICHARD D. SLETTER, CLERK
JUDGMENT ENTD
DEPUTY CLERK

TABLE OF CONTENTS

I.	<u>JURISDICTION AND VENUE</u>	3
II.	<u>APPLICABILITY</u>	3
III.	<u>FACTUAL BACKGROUND</u>	4
IV.	<u>COMPLIANCE PROGRAM SUMMARY</u>	5
V.	<u>COMPLIANCE PROGRAM</u>	8
	A. <u>Installation Of Controls</u>	8
	B. <u>Permitting and Modifications</u>	11
	C. <u>Emission Limits</u>	12
	D. <u>Demonstration of Compliance</u>	17
	E. <u>Recordkeeping and Recording</u>	18
VI.	<u>CIVIL PENALTY</u>	19
VII.	<u>STIPULATED PENALTIES</u>	20
VIII.	<u>RIGHT OF ENTRY</u>	23
IX.	<u>FORCE MAJEURE</u>	23
X.	<u>DISPUTE RESOLUTION</u>	26
XI.	<u>GENERAL PROVISIONS</u>	28
XII.	<u>TERMINATION</u>	32

CONSENT DECREE

WHEREAS, Plaintiff, the United States of America (hereinafter "Plaintiff" or "the United States"), on behalf of the United States Environmental Protection Agency (herein, "EPA"), has, simultaneously with lodging of this Consent Decree, filed a Complaint alleging that Defendant, Al-Corn Clean Fuel Cooperative and Defendant Al-Corn Clean Fuel Limited Partnership (collectively referred to herein as, "Al-Corn" or "Defendant") commenced construction of a major emitting facility and major modifications of a major emitting facility in violation of the Prevention of Significant Deterioration ("PSD") requirements at Part C of the Clean Air Act (the "Act"), 42 U.S.C. §§ 7470-7492, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the "PSD Rules");

WHEREAS, Plaintiff further alleged that Defendant commenced construction of an emitting facility or modified an emitting facility without first obtaining the appropriate preconstruction permits and installing the appropriate air pollution control equipment required by 40 C.F.R. § 52.21 and the Minnesota State Implementation Plan ("SIP") approved pursuant to 42 U.S.C. § 7410;

WHEREAS, Plaintiff further alleged that potential air emissions from the Defendant's facility were underestimated;

WHEREAS, the State of Minnesota, through the Minnesota Pollution Control Agency ("MPCA" or "Plaintiff-Intervenor"), has, simultaneously with lodging of this Consent Decree, filed a Complaint in Intervention, alleging that Al-Corn was and is in violation of the Minnesota SIP, by failing to obtain the appropriate pre-construction permits, by failing to accurately report

emissions increases, and by failing to install appropriate pollution control technology, in violation of applicable state laws, including Minnesota Rule ("Minn. R.") 7007.3000;

WHEREAS, in 1995, three hundred fifty-four (354) farm families in the Claremont area in south central Minnesota organized themselves into a cooperative known as Al-Corn to build an ethanol plant;

WHEREAS, MPCA issued a minor source permit for the plant on April 29, 1996, and ethanol production began in 1996;

WHEREAS, Al-Corn is a small facility that has produced ethanol in the following quantities:

- 1996 11.73 million gallons
- 1997 13.14 million gallons
- 1998 14.47 million gallons
- 1999 16.69 million gallons
- 2000 17.71million gallons
- 2001 17.89 million gallons;

WHEREAS, in January, 2001, Al-Corn's Board of Directors voted to spend approximately \$2.0 million to install a thermal oxidizer;

WHEREAS, Al-Corn ordered its thermal oxidizer in November, 2001. On October 17, 2001, Al-Corn applied for an amendment to its MPCA permit in order to install its thermal oxidizer and expand its plant;

WHEREAS, on April 19, 2002, the MPCA issued a permit to Al-Corn allowing it to install its thermal oxidizer and expand its plant;

WHEREAS, the thermal oxidizer is expected to be operational during the late summer of 2002;

WHEREAS, on February 7, 2002, the MPCA met with representatives of the ethanol plants in Minnesota, including Al-Corn, to discuss VOC test results, VOC emissions, and related compliance issues;

WHEREAS, on April 30, 2002, Al-Corn executed a letter of commitment to negotiate with EPA and MPCA for the installation of controls on its plant to address the possible exceedance of air quality limits;

WHEREAS, Al-Corn has worked cooperatively with EPA and MPCA regarding the alleged violations and voluntarily provided requested information without information requests under Section 114 of the Act, 42 U.S.C. § 7414;

WHEREAS, the Defendant does not admit the violations alleged in the Complaints;

WHEREAS, the United States and Plaintiff-Intervenor (collectively "Plaintiffs"), and the Defendant have agreed that settlement of this action is in the best interest of the parties and in the public interest, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter; and

WHEREAS, Plaintiffs and the Defendant consent to entry of this Consent Decree without trial of any issues;

NOW, THEREFORE, without any admission of fact or law, and without any admission of the violations alleged in the Complaints, it is hereby ORDERED AND DECREED as follows:

I. JURISDICTION AND VENUE

1. The Complaints state a claim upon which relief can be granted against the

Defendant under Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477, and 28 U.S.C. § 1355. This Court has jurisdiction of the subject matter herein and over the parties consenting hereto pursuant to 28 U.S.C. § 1345 and pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477. Venue is proper under Section 113(b) of the Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c).

II. APPLICABILITY

2. The provisions of this Consent Decree shall apply to and be binding upon the Plaintiffs and upon the Defendant as well as the Defendant's officers, employees, agents, successors and assigns. In the event Defendant proposes to sell or transfer its facility (i.e., a plant or mill) subject to this Consent Decree before termination of the Consent Decree, it shall advise such proposed purchaser or successor-in-interest in writing of the existence of this Consent Decree, and shall send a copy of such written notification by certified mail, return receipt requested, to the EPA Regional Administrator for the region in which the facility is located before such sale or transfer, if possible, but no later than the closing date of such sale or transfer. The Defendant shall provide a copy of the Consent Decree and the Control Technology Plan required in Paragraph 15 of this Consent Decree to the proposed purchaser or successor-in-interest. In the event the Defendant sells or otherwise assigns any of its right, title, or interest in its facility, prior to termination of the Consent Decree, the conveyance shall not release the Defendant from any obligation imposed by this Consent Decree unless the party to whom the right, title or interest has been transferred agrees in writing to fulfill the obligations of this Consent Decree.

III. FACTUAL BACKGROUND AND APPLICABLE DEFINITIONS

3. (a) Al-Corn is a “person” as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e), and the federal and state regulations promulgated pursuant to the Act.

(b) Al-Corn owns and operates a plant in Claremont, Minnesota, for the manufacture of ethanol. Al-Corn receives whole corn which is then milled, cooked, and fermented. After fermentation, the raw product is distilled to produce ethanol. Distillation separates the liquid ethanol from the corn meal, which Al-Corn may dry or sell as wet mash for animal feed. The Plaintiffs allege that in the course of these manufacturing activities significant quantities of particulate matter (“PM”), particulate matter at or below 10 microns (“PM₁₀”), carbon monoxide (“CO”), volatile organic compounds (“VOCs”), nitrogen oxides (“NO_x”) and other pollutants are generated, including hazardous air pollutants (“HAPs”) listed under Section 112(b)(1), 42 U.S.C. § 7412(b)(1) of the Act. The primary sources of these emissions are the feed dryers, fermentation units, gas boilers, cooling cyclones, ethanol truck load-out systems, and the fugitive dust emissions from the facility operations, including roads.

(c) Plaintiffs allege that Al-Corn’s ethanol plant in Claremont, Minnesota is a “major emitting facility,” as defined by Section 169(1) of the Act, 42 U.S.C. § 7479(1), and the federal and state regulations promulgated pursuant to the Act.

(d) Definitions: Unless otherwise defined herein, terms used in this Consent Decree shall have the meaning given to those terms in the Act, and the federal and state regulations promulgated pursuant to the Act.

IV. COMPLIANCE PROGRAM SUMMARY

4. Al-Corn shall implement a program of compliance at its ethanol distillation facility to attain the emission levels required under this Consent Decree for VOC, PM, PM₁₀,

CO, and NO_x. Al-Corn's compliance program is summarized below in Paragraphs 5 through 10, and implemented through Paragraphs 15 through 17 and 26 through 28 of this Consent Decree.

5. Al-Corn shall implement a program to control and minimize fugitive particulate matter emissions from facility operations as set forth in the approved Control Technology Plan required under Part V of this Consent Decree and which is Attachment 1 to this Consent Decree.

6. Al-Corn shall demonstrate compliance with the required emission levels on a unit-by-unit basis as set forth in the approved Control Technology Plan.

7. Al-Corn shall demonstrate compliance with the emission limits established under this Consent Decree by the use of performance testing, parametric monitoring, recordkeeping and reporting, or initial and periodic compliance testing, where appropriate, as set forth in the approved Control Technology Plan.

8. Al-Corn shall maintain records to demonstrate compliance with New Source Performance Standards ("NSPS"), Part 60, Subparts Dc, Kb, and VV, and its fugitive dust management program.

9. Al-Corn shall accept source-wide allowable emission caps equivalent to 95 tons per year ("TPY"), for each pollutant, for VOCs, PM, PM₁₀, sulfur dioxide ("SO₂"), NO_x, and CO based on a 12-month rolling sum, rolled monthly, and recorded monthly.

10. Al-Corn shall apply for a modification to its federally-enforceable operating permit to incorporate the 95 TPY allowable emission caps and the lower emission limits applicable to each unit as set forth in the approved Control Technology Plan.

11. Al-Corn shall obtain a federally-enforceable permit prior to beginning construction or operation of any future modification that will result in a significant net emission

increase as defined by 40 C.F.R. Part 52, but will not exceed the 95 TPY allowable emission caps. The modifications required in Part V Section A ("Installation of Controls and Applicable Emission Limits") of this Consent Decree and any modification that qualifies under Minnesota Rule 7007.1250 and 7007.1450 subp. 2 are excluded from the requirements of this Paragraph. For purposes of determining whether a modification will result in a significant net emissions increase, Al-Corn shall use results from its initial compliance testing to determine its past actual emissions baseline. Al-Corn shall include in its application for the federally-enforceable permit, and MPCA shall propose to incorporate in the permit, the 95 TPY allowable emission caps or a schedule to meet the 95 TPY allowable emission caps and all emission limits, monitoring and recordkeeping requirements as set forth in the approved Control Technology Plan and this Consent Decree, and Al-Corn shall not contest what is contained in its permit application.

12. If, as a result of any future modifications, prior to termination of the Consent Decree, the total limited potential emissions of VOCs, PM, PM₁₀, SO₂, NO_x and CO will exceed the 95 TPY allowable emission caps, then Al-Corn shall complete and submit for MPCA approval a source-wide PSD/NSR permit application that includes the approved Control Technology Plan requirements as set forth in this Consent Decree. To the extent that Al-Corn demonstrates, through results of compliance tests or evidence of operating conditions, that its facility has operated below the 95 TPY emission caps for 24 months, the facility shall be treated as a synthetic minor for air permitting requirements and permit requirements for future modifications will be governed by applicable state and federal regulations.

13. Except as provided in Paragraph 12, if as a result of any future modifications, prior to termination of the Consent Decree, the total limited potential emissions of VOCs, PM,

PM₁₀, SO₂, NO_x and CO will exceed the 95 TPY allowable emission caps , then Al-Corn shall obtain a PSD/NSR permit prior to beginning construction of those modifications. Following termination of the Consent Decree, Al-Corn shall obtain necessary permits or permit amendments, as required under applicable state and federal regulations.

14. Al-Corn shall include in its application, and MPCA shall propose to incorporate, the emission limits, monitoring and recordkeeping requirements of the approved Control Technology Plan and this Consent Decree into any existing or new permit issued to the source as federally-enforceable Title I permit conditions and such emission limits, monitoring and recordkeeping requirements shall remain applicable to the source for the life of its operation or until changed through a permit amendment. Al-Corn shall not contest what is contained in its permit application. Requirements under this Consent Decree excluded under this Paragraph as Title I conditions are NSPS Subparts Dc, Kb, and VV, and the fugitive emission control program referenced in Paragraphs 15(j) and (h), respectively. In addition, the Consent Decree shall be referenced in the permit as the legal basis for all applicable requirements created by the Consent Decree.

V. COMPLIANCE PROGRAM REQUIREMENTS

A. Installation Of Controls And Applicable Emission Limits

15. Al-Corn shall implement a plan for the installation of air pollution control technology (“Control Technology Plan”) capable of meeting the following emission level reductions for the identified units in subparagraphs (a) through (j). Al-Corn's Control Technology Plan, which has been approved by Plaintiffs, is Attachment 1 to this Consent Decree:

(a) Feed Dryers: 95 percent reduction of VOC or emissions no higher than 10 parts per million ("PPM") of VOC, 90 percent reduction of CO emissions or emissions no higher than 100 PPM CO, and reduction of PM and PM₁₀ based on operation of pollution control technology specified in the approved Control Technology Plan and as established after initial performance testing pursuant to Paragraph 24 of this Consent Decree. A NO_x emission factor shall be established after initial performance testing required pursuant to Paragraph 23 of this Consent Decree. The emission factor will be used to determine compliance with Paragraph 15(g). The following units are subject to these limits: EU 013, EU 037

(b) Fermentation Units: 95 percent reduction of VOC or if the inlet is less than 200 PPM of VOC, then 20 PPM or lower of VOC. The following units are subject to this limit: EU 009-EU 012, EU 038-EU 039, EU 045, EU 052

(c) Gas Boilers: Installation of low NO_x burner on EU 017. A NO_x emission factor shall be established after initial performance testing required pursuant to Paragraph 23 of this Consent Decree. The emission factor will be used to determine compliance with Paragraph 15(g). The following unit is subject to these limits: EU 017

(d) Cooling Cyclones: 95 percent reduction of VOC or emissions no higher than 10 PPM of VOC. The following unit is subject to this limit: EU 018

(e) Fugitive Dust Control PM: A program shall be developed for minimization of fugitive dust emissions from facility operations. The following area is subject to this program: FS 002

(f) Ethanol Loadout:
Truck loadout: Design an enclosure for total capture of VOC and operate a closed loop system vented to the feed dryer control equipment for destruction of the captured VOC.
Railcar loadout: All railcars shall be dedicated as ethanol only.
The following unit is subject to this limit: FS 001

(g) Additional Requirements for NO_x Emission Units:
Establish a Group NO_x limit based on 0.04 lbs of NO_x per unit, per MMBtu at capacity. An adjustment for propane usage may be made for a designated period of time based on a limit of 0.08 lbs of NO_x per MMBtu. Emission factors for each unit in this group shall be established during the initial performance test required in Paragraph 23 of this Consent Decree and will be used to calculate compliance with the Group NO_x limit, based

on actual fuel usage for all emission units in this group. The fuel used by this group as a whole shall not allow NOx emissions in excess of 41.7 TPY. The following units are subject to this limit: EU 013, EU 017, EU 037, EU 042

(h) Fugitive VOC: Implement and comply with the requirements of 40 C.F.R. Part 60, Subpart VV. The following unit is subject to these requirements: FS 004

(i) Additional Requirements for Hazardous Air Pollutants ("HAPs"): Beginning no later than 180 days following the start-up of the last piece of control equipment required in the approved Control Technology Plan, Al-Corn shall continually operate its facility so as not to exceed source-wide allowable emissions of 9.0 TPY for any single HAP or 24.0 TPY for all HAPs based on a 12-month rolling sum, rolled monthly, and recorded monthly. For the first eleven months, beginning no later than 180 days following start-up of the last piece of control equipment required in the approved Control Technology Plan, compliance with the 12-month rolling sum will be demonstrated based on the schedule to meet applicable emission caps as set forth in the approved Control Technology Plan. If, based on emissions testing as set forth in the approved Control Technology Plan, additional control measures are required to meet the 9.0 or 24.0 TPY emission caps, such control measures shall be implemented and included in the operating permit application required under Paragraph 17.

(j) New Source Performance Standards (NSPS): Identify and implement applicable NSPS requirements codified at 40 C.F.R. Part 60. The following NSPS apply: NSPS subpart Dc (Small Industrial Commercial-Institutional Steam Generating Units less than 29 MW (100 million BTu/hour)); NSPS subpart Kb (Volatile Organic Liquid Storage Vessels); and NSPS subpart VV (Synthetic Organic Chemicals Manufacturing Industry Leak Detection, Monitoring and Repair Requirements).

16. Al-Corn shall implement the approved Control Technology Plan in accordance with the schedule set forth in that plan. Al-Corn's approved Control Technology Plan is incorporated by reference herein and made directly enforceable by Plaintiffs under this Consent Decree.

B. Permitting And Modification

17. Source-wide Permit: By no later than 180 days following the start-up of the last piece of control equipment required in the approved Control Technology Plan, Al-Corn shall apply for a modification to its federally-enforceable operating permit(s) to incorporate the 95 TPY source-wide allowable emission caps as described in Paragraph 9.

18. Future Modifications: Except as provided in Paragraph 12, for the effective period of the Consent Decree, Al-Corn shall obtain a federally-enforceable permit prior to beginning construction or operation of any future modification that will result in a significant net emission increase as defined by 40 C.F.R. Part 52, but will not exceed the 95 TPY allowable emission caps. The modifications required in Part V Section A (“Installation of Controls and Applicable Emission Limits”) and the approved Control Technology Plan of this Consent Decree and any modification that qualifies under Minnesota Rule 7007.1250 and 7007.1450 subp. 2 are excluded from the requirements of this Paragraph. This permit shall incorporate the 95 TPY allowable emission caps or a schedule to meet the 95 TPY allowable emission caps and emission limits, monitoring and recordkeeping requirements as set forth in the approved Control Technology Plan and this Consent Decree, including the requirements establishing the emission level reductions within the Control Technology Plan.

19. In determining whether a future modification will result in a significant net emissions increase, Al-Corn cannot take credit for any emission reductions resulting from the implementation of the approved Control Technology Plan for netting purposes as defined by 40 C.F.R. § 52.21(b)(3). In addition, the emission reductions of PM, PM₁₀, NO_x, SO₂ and CO required under this Consent Decree and the applicable NSPS may not be used for any emissions

offset, banking, selling or trading program. VOC emissions reductions up to 98 percent of the uncontrolled feed dryer emissions may not be used for any emissions offset, banking, selling or trading program.

20. Except as provided for in Paragraph 12, Al-Corn shall obtain a PSD permit prior to beginning construction of any future modifications during the effective period of the Consent Decree that will cause any increase in its limited potential emissions of any pollutant regulated under the Act above the 95 TPY source-wide caps, or prior to relaxation of a federally-enforceable permit limit pursuant to 40 C.F.R. § 52.21(r)(4).

C. Emission Limits

21. Unit Emission Limit for VOC, CO, NOx: Beginning no later than 180 days following the start-up of each piece of control equipment required in its approved Control Technology Plan, Al-Corn shall continually operate each unit in accordance with the operating parameters set forth in the approved Control Technology Plan.

22. VOC Limit for Cooling Cyclone:

(a) By no later than 90 days following the initial performance test of the cooling cyclone as required in Paragraphs 15(d) and 28, Al-Corn shall submit a written evaluation of the technical feasibility and cost effectiveness of additional VOC control equipment for the cooling cyclone and the technical feasibility and cost effectiveness of either directly or indirectly routing the cooling cyclone emissions to feed dryer control equipment.

(1) If the evaluation demonstrates that additional controls or routing the emissions to the feed dryer control equipment are technically feasible and cost effective, a schedule to install the controls and interim VOC emission limit(s) to apply until controls are

installed must be included in the evaluation.

(2) If Al-Corn concludes that additional controls are not technically feasible and cost effective, Al-Corn shall propose a VOC emission limit(s) based on the data collected from initial performance testing and other available pertinent information.

(b) Al-Corn shall immediately comply with the proposed VOC emission limit(s) or interim VOC emission limit(s).

(c) MPCA will use the data collected, the control equipment evaluation and other available pertinent information to establish a VOC emission limit(s) for the cooling cyclone and, if necessary, the required emissions control or to support a determination that additional controls are not technically feasible or cost-effective. MPCA shall provide written notice to Al-Corn of the established limit, or the additional required controls, and MPCA's notice shall be incorporated into and enforceable under this Consent Decree.

(1) If the limit established by the MPCA is more stringent than the limit proposed by Al-Corn, Al-Corn shall have 30 days from the date of the written notice to comply with the established limit(s).

(2) If MPCA determines that controls are required in addition to, or different from, those proposed by Al-Corn, Al-Corn shall have 30 days from the date of the written notice to provide MPCA with a schedule to install the controls. The MPCA shall allow Al-Corn a reasonable time to install the required controls. If Al-Corn contests the MPCA's proposed limit or MPCA's proposed controls, Al-Corn shall have 60 days to invoke the Dispute Resolution process pursuant to Part X ("Dispute Resolution") and obtain a stay from the Court. Until a limit is established under the Dispute Resolution process herein, Al-Corn shall comply

with the emission limit(s) it proposed under Paragraph 22(a)(2).

23. NO_x Emission Factors: Following the initial performance test as required in Paragraphs 15 (a), (c), and (g) and 28, Al-Corn shall establish unit specific NO_x emission factors that it will use to calculate actual NO_x emissions to demonstrate compliance with Paragraph 15(g). The method to determine compliance with the limit in Paragraph 15(g) is specified in the approved Control Technology Plan.

(a) By no later than 90 days following the initial performance test of the feed dryer, thermal oxidizer, and boilers as required in Paragraphs 15(a) and (c) and 28, if Al-Corn determines that it cannot meet the Group NO_x limit in Paragraph 15(g), Al-Corn shall submit a written evaluation of the technical feasibility and cost-effectiveness of additional NO_x control equipment or low NO_x burner replacement for the feed dryer, thermal oxidizer, and boiler to meet the Group NO_x limit required in Paragraph 15(g).

(1) If the evaluation demonstrates that additional controls to meet the Group NO_x limit are technically feasible and cost-effective, a schedule to install the controls and an interim NO_x emission limit(s) to apply until controls are installed must be included in the evaluation.

(2) If Al-Corn concludes that additional controls are not technically feasible and cost-effective, Al-Corn shall propose an adjusted Group NO_x limit to replace the limit initially required in Paragraph 15(g) based on the data collected from initial performance testing and other available pertinent information.

(b) Al-Corn shall immediately comply with the proposed adjusted Group NO_x limit or interim NO_x limit(s).

(c) MPCA will use the data collected, the control equipment evaluation and other available pertinent information to establish an adjusted Group NOx limit, and if necessary, the required emissions control or to support a determination that additional controls are not technically feasible and cost-effective. MPCA shall provide written notice to Al-Corn of the established limit, or the additional required controls, and MPCA's notice shall be incorporated into and enforceable under this Consent Decree.

(1) If the limit established by the MPCA is more stringent than the limit proposed by Al-Corn, Al-Corn shall have 30 days from the date of the written notice to comply with the established limit.

(2) If MPCA determines that controls are required in addition to, or different from, those proposed by Al-Corn, Al-Corn shall have 30 days from the date of the written notice to provide MPCA with a schedule to install the controls. The MPCA shall allow Al-Corn a reasonable time to install the required controls. If Al-Corn contests the MPCA's proposed limit or MPCA's proposed controls, Al-Corn shall have 60 days to invoke the Dispute Resolution process pursuant to Part X ("Dispute Resolution") and obtain a stay from the Court. Until a limit is established under the Dispute Resolution process herein, Al-Corn shall comply with the adjusted Group NOx limit it proposed under Paragraph 23(a)(2).

24. Unit Emission Limit for PM and PM₁₀: By no later than 45 days following the initial performance test of the control equipment for the feed dryer as required in Paragraphs 15(a) and 28, Al-Corn shall propose PM and PM₁₀ emission limits based on the data collected from initial performance testing and other available pertinent information. Al-Corn shall immediately comply with the proposed emission limit. MPCA will use the data collected and

other available pertinent information to establish limits for PM and PM₁₀. MPCA shall provide written notice to Al-Corn of the established limit and the established limit shall be incorporated into and enforceable under this Consent Decree. If Al-Corn contests the MPCA's proposed limit, Al-Corn shall have 60 days to invoke the Dispute Resolution process pursuant to Part X ("Dispute Resolution") and obtain a stay from the Court. Until a limit is established under the Dispute Resolution process herein, Al-Corn shall comply with the emission limit(s) it proposed under this Paragraph.

25. Unit Operating Permits: By no later than 180 days following start-up of the last piece of control equipment required in its approved Control Technology Plan, Al-Corn shall apply for modification to its federally-enforceable operating permit to incorporate the emission limits, monitoring parameters, and recordkeeping set forth in the approved Control Technology Plan and this Consent Decree.

26. Source-wide Caps:

(a) Beginning no later than 180 days following start-up of the last piece of control equipment required in its approved Control Technology Plan, Al-Corn shall continually operate its facility so as not to exceed the source-wide allowable emission caps of 95 TPY for each pollutant for VOCs, PM, PM₁₀, SO₂, NO_x, and CO based on a 12-month rolling sum, rolled monthly, and recorded monthly. For the first eleven months, beginning no later than 180 days following start-up of the last piece of control equipment required in the approved Control Technology Plan, compliance with the 12-month rolling sum will be demonstrated based on a schedule to meet applicable emission caps as set forth in the approved Control Technology Plan. This provision shall survive termination of this Consent Decree until the 95 TPY emission caps

are amended by or incorporated into a federally-enforceable permit for the facility.

(b) Beginning no later than 180 days following start-up of the last piece of control equipment required in its approved Control Technology Plan, Al-Corn shall continually operate its facility so as not to exceed the source-wide allowable emission caps of 9.0 TPY for any single hazardous air pollutant or 24.0 TPY for all hazardous air pollutants based on a 12-month rolling sum, rolled monthly, and recorded monthly. For the first eleven months, beginning no later than 180 days following start-up of the last piece of control equipment required in the approved Control Technology Plan, compliance with the 12-month rolling sum will be demonstrated based on a schedule to meet applicable emission caps as set forth in the approved Control Technology Plan. This provision shall survive termination of this Consent Decree until the 9.0 TPY and 24.0 TPY emission caps are amended by or incorporated into a federally-enforceable permit for the facility.

D. Demonstration Of Compliance

27. Al-Corn shall demonstrate continuous compliance with the emission limits established under this Consent Decree by the use of parametric monitoring, recordkeeping and reporting, as set forth in the approved Control Technology Plan.

28. By no later than 120 days following the start-up of the last piece of control equipment required in the approved Control Technology Plan, Al-Corn shall demonstrate through emissions testing of each emissions unit as specified in the approved Control Technology Plan, conducted in accordance with a MPCA and U.S. EPA approved test protocol, that it has met the required destruction efficiency and/or emission limit. Al-Corn shall follow all testing requirements in Minnesota Rule 7017. Al-Corn shall retest the dryer for VOCs, CO, PM,

and PM₁₀ no less than annually for the effective period of the Consent Decree. Al-Corn shall retest all other units in accordance with MPCA's policy regarding performance testing frequency.

29. Al-Corn shall maintain control technology performance criteria monitoring data and records as set forth in the approved Control Technology Plan, and shall make them available to the Plaintiffs upon demand as soon as practicable.

E. Recordkeeping And Reporting Requirements

30. Beginning with the first full calendar quarter following lodging of this Consent Decree, Al-Corn shall submit written reports within 30 days following each calendar quarter to MPCA and U.S. EPA that itemize Consent Decree requirements and the approved Control Technology Plan requirements, the applicable deadlines, the dates the tasks were completed, unit emissions data and data to support Al-Corn's compliance status with the terms of this Consent Decree. Reports shall be sent to the addresses identified in Paragraph 64 ("Notice"). Emissions data may be submitted in electronic format.

31. Al-Corn shall preserve and retain all records and documents now in its possession or control, or which come into its possession or control, that support the reporting and compliance requirements under this Part for a period of three years following the termination of this Consent Decree, unless other regulations require the records to be maintained longer.

32. All notices, reports or any other submissions from Al-Corn shall contain the following certification and may be signed by an owner or operator of the company responsible for environmental management and compliance:

"I certify under penalty of law that I have personally examined the information submitted herein and that I have made a diligent

inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

VI. CIVIL PENALTY

33. Within thirty (30) calendar days of entry of this Consent Decree, the Defendant shall pay to the Plaintiffs a civil penalty pursuant to Section 113 of the Act, 42 U.S.C. § 7413 and Minn. Stat. § 115.071, in the amount of \$36,800 (Thirty-Six Thousand Eight Hundred Dollars). Pursuant to the Act, the following factors were considered in determining a civil penalty, in addition to other factors as justice may require, the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation, payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, and the seriousness of the violation.

34. Of the total penalty, \$18,400, shall be paid to the United States by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing the USAO File Number and DOJ Case Number 90-5-2-1-07784, and the civil action case name and case number of the District of Minnesota. The costs of such EFT shall be Al-Corn's responsibility. Payment shall be made in accordance with instructions provided to Al-Corn by the Financial Litigation Unit of the U.S. Attorney's Office in the District of Minnesota. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Al-Corn shall provide notice of payment, referencing the USAO File Number and DOJ Case Number 90-5-2-1-07784, and the civil action case name and case number, to the

Department of Justice and to EPA, as provided in Paragraph 64 ("Notice"). The total remaining amount, \$18,400 in civil penalties, shall be paid to the Plaintiff-Intervenor the State of Minnesota, made in the form of a certified check payable to the Minnesota Pollution Control Agency and delivered to:

Enforcement Penalty Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155-4194

35. The Defendant shall pay statutory interest on any over due civil penalty or stipulated penalty amount at the rate specified in 31 U.S.C. § 3717. Upon entry of this Consent Decree, this Consent Decree shall constitute an enforceable judgment for purposes of post-judgment collection in accordance with Rule 69 of the Federal Rules of Civil Procedure, the Federal Debt Collection Procedure Act, 28 U.S.C. § 3001-3308, Minnesota Statute Chapter 16D and other applicable federal and state Authority. The Plaintiffs shall be deemed a judgment creditor for purposes of collection of any unpaid amounts of the civil and stipulated penalties and interest.

36. No amount of the \$36,800 civil penalty to be paid by Al-Corn shall be used to reduce its federal or state tax obligations.

VII. STIPULATED PENALTIES

37. The Defendant shall pay stipulated penalties in the amounts set forth below to the Plaintiffs, to be paid 50 percent to the United States and 50 percent to the Plaintiff-Intervenor, for the following:

(a) for each day of failure to propose PM, PM₁₀, and VOC emissions limits under Paragraphs 22 and 24:

1st through 30th day after deadline	\$ 250
31st through 60th day after deadline	\$ 500
Beyond the 60 th day	\$1000

(b) for each day of failure to meet the deadlines for installation of control technology systems set forth in the Control Technology Plan and applying for, or obtaining, permits under Paragraphs 17, 18, 20, and 25:

1st through 30th day after deadline	\$ 800
31st through 60th day after deadline	\$1,200
Beyond 60th day	\$2,000

(c) for failure to conduct a compliance test as required by Paragraph 28, per day per unit:

1st through 30th day after deadline	\$ 250
31st through 60th day after deadline	\$ 500
Beyond 60th day	\$1,000

(d) for failure to demonstrate compliance with emission limits set forth in the approved Control Technology Plan or emission limits set pursuant to Part V Section C ("Emission Limits"): \$5000 per emissions test for each pollutant

(e) for each failure to submit reports or studies as required by Part V Section E ("Recordkeeping and Reporting Requirements") of this Consent Decree, per day per report or notice:

1st through 30th day after deadline	\$ 250
31st through 60th day after deadline	\$ 500

Beyond 60th day \$1,000

(f) for failure to pay or escrow stipulated penalties, as specified in Paragraphs 38 and 39 of this section, \$500 per day per penalty demand.

(g) for failure to notify the Plaintiffs pursuant to Paragraph 2 of Al-Corn's sale or transfer of the facility, \$250 per day.

38. Al-Corn shall pay stipulated penalties upon written demand by the Plaintiffs no later than thirty (30) days after Defendant receives such demand. Stipulated penalties shall be paid to the Plaintiffs in the manner set forth in Part VI ("Civil Penalty") of this Consent Decree.

39. Should Al-Corn dispute its obligation to pay part or all of a stipulated penalty, it may avoid the imposition of the stipulated penalty for failure to pay a penalty due to the Plaintiffs by placing the disputed amount demanded by the Plaintiffs, not to exceed \$20,000 for any given event or related series of events at any one plant, in a commercial escrow account pending resolution of the matter and by invoking the Dispute Resolution provisions of Part X within the time provided in Paragraph 38 for payment of stipulated penalties. If the dispute is thereafter resolved in Defendant's favor, the escrowed amount plus accrued interest shall be returned to the Defendant. Otherwise the Plaintiffs shall be entitled to the escrowed amount that was determined to be due by the Court plus the interest that has accrued on such amount, with the balance, if any, returned to the Defendant.

40. The Plaintiffs reserve the right to pursue any other remedies for violations of this Consent Decree to which they are entitled. The Plaintiffs will not seek stipulated penalties and civil or administrative penalties for the same violation of the Consent Decree.

VIII. RIGHT OF ENTRY

41. Any authorized representative of the EPA or MPCA, or an appropriate federal or state agency, including independent contractors, upon presentation of proper credentials and in compliance with the facility's safety requirements, shall have a right of entry upon the premises of Al-Corn's plant identified herein at Paragraph 3(b) at any reasonable time for the purpose of monitoring compliance with the provisions of this Consent Decree, including inspecting plant equipment, and inspecting and copying all records maintained by Defendant required by this Consent Decree. Nothing in this Consent Decree shall limit the authority of EPA and MPCA to conduct tests and inspections under Section 114 of the Act, 42 U.S.C. § 7414, and Minnesota Statute §§ 116.07, subd. 9 and 116.091 or any other applicable law.

IX. FORCE MAJEURE

42. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, Defendant shall notify the Plaintiffs in writing as soon as practicable, but in any event within twenty (20) business days of when Defendant first knew of the event or should have known of the event by the exercise of due diligence. In this notice Defendant shall specifically reference this Paragraph of this Consent Decree and describe the anticipated length of time the delay may persist, the cause or causes of the delay, and the measures taken or to be taken by Defendant to prevent or minimize the delay and the schedule by which those measures will be implemented. Defendant shall adopt all reasonable measures to avoid or minimize such delays.

43. Failure by Defendant to provide notice to Plaintiffs of an event which causes or may cause a delay or impediment to performance shall render this Part IX voidable by the

Plaintiffs as to the specific event for which the Defendant has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.

44. The United States or MPCA shall notify the Defendant in writing regarding the Defendant's claim of a delay or impediment to performance as soon as practicable, but in any event within thirty (30) days of receipt of the Force Majeure notice provided under Paragraph 42. If the Plaintiffs agree that the delay or impediment to performance has been or will be caused by circumstances beyond the control of the Defendant, including any entity controlled by the Defendant, and that the Defendant could not have prevented the delay by the exercise of due diligence, the parties shall stipulate to an extension of the required deadline(s) for all requirement(s) affected by the delay by a period equivalent to the delay actually caused by such circumstances. The Defendant shall not be liable for stipulated penalties for the period of any such delay.

45. If the Plaintiffs do not accept the Defendant's claim that a delay or impediment to performance is caused by a force majeure event, to avoid payment of stipulated penalties, the Defendant must submit the matter to this Court for resolution within twenty (20) business days after receiving notice of the Plaintiffs' position, by filing a petition for determination with this Court. Once the Defendant has submitted this matter to this Court, the Plaintiffs shall have twenty (20) business days to file its response to said petition. If the Defendant submits the matter to this Court for resolution and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of the Defendant, including any entity controlled by the Defendant, and that the Defendant could not have prevented the delay by the exercise of due diligence, the Defendant shall be excused as to that

event(s) and delay (including stipulated penalties), for a period of time equivalent to the delay caused by such circumstances.

46. The Defendant shall bear the burden of proving that any delay of any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond its control, including any entity controlled by it, and that the Defendant could not have prevented the delay by the exercise of due diligence. The Defendant shall also bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but does not necessarily, result in an extension of a subsequent compliance date or dates.

47. Unanticipated or increased costs or expenses associated with the performance of the Defendant's obligations under this Consent Decree shall not constitute circumstances beyond the control of the Defendant, or serve as a basis for an extension of time under this Part. However, failure of a permitting authority to issue a necessary permit in a timely fashion is an event of Force Majeure where the Defendant has taken all steps available to it to obtain the necessary permit including but not limited to:

- (a) submitting a timely and complete permit application;
- (b) responding to requests for additional information by the permitting authority in a timely fashion; and
- (c) prosecuting appeals of any disputed terms and conditions imposed by the permitting authority in an expeditious fashion.

48. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of

Defendant delivering a notice of Force Majeure or the parties' inability to reach agreement.

49. As part of the resolution of any matter submitted to this Court under this Part IX, the parties by agreement, or this Court, by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the Plaintiffs or approved by this Court. Defendant shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

X. DISPUTE RESOLUTION

50. The dispute resolution procedure provided by this Part X shall be available to resolve all disputes arising under this Consent Decree, including but not limited to emission limits established by the MPCA in Part V Section C ("Emission Limits"), except as otherwise provided in Part IX regarding Force Majeure.

51. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the parties to this Consent Decree to another advising of a dispute pursuant to this Part X. The notice shall describe the nature of the dispute, and shall state the noticing party's position with regard to such dispute. The party receiving such a notice shall acknowledge receipt of the notice and the parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days from the receipt of such notice.

52. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting between representatives of the Plaintiffs and the Defendant, unless the parties' representatives agree to

shorten or extend this period.

53. In the event that the parties are unable to reach agreement during such informal negotiation period, the Plaintiffs shall provide the Defendant with a written summary of their position regarding the dispute. The position advanced by the Plaintiffs shall be considered binding unless, within forty-five (45) calendar days of the Defendant's receipt of the written summary of the Plaintiffs position, the Defendant files with this Court a petition which describes the nature of the dispute, and includes a statement of the Defendant's position and any supporting data, analysis, and/or documentation relied on by the Defendant. The Plaintiffs shall respond to the petition within forty-five (45) calendar days of filing.

54. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set out in this Part X may be shortened upon motion of one of the parties to the dispute.

55. Notwithstanding any other provision of this Consent Decree, in dispute resolution, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of invocation of this Part X or the parties' inability to reach agreement. The final position of the Plaintiffs shall be upheld by the Court if supported by substantial evidence in the record as identified and agreed to by all the Parties.

56. As part of the resolution of any dispute submitted to dispute resolution, the parties, by agreement, or this Court, by order, may, in appropriate circumstances, extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. Defendant shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the

extended or modified schedule.

XI. GENERAL PROVISIONS

57. Effect of Settlement. This Consent Decree is not a permit; compliance with its terms does not guarantee compliance with any applicable federal, state or local laws or regulations. To the extent that the terms of this Consent Decree conflict with the terms of any air quality permit, the terms of this Consent Decree shall control during the effective period of the Consent Decree.

58. Resolution of Claims. Satisfaction of all of the requirements of this Consent Decree constitutes full settlement of and shall resolve all past civil and administrative liability of the Defendant to the Plaintiffs for the violations alleged in the United States' and Plaintiff-Intervenor's Complaints and all civil and administrative liability of the Defendant for any violations at its facility based on facts and events that occurred during the relevant time period under the following statutory and regulatory provisions: (a) NSPS, 40 C.F.R. Part 60, including subparts Dc, Kb, and VV; (b) National Emission Standards for Hazardous Air Pollutants, 40 C.F.R. Part 63, pursuant to Sections 112(d) and 112(g) of the Act; (c) PSD requirements at Part C of the Act and the regulations promulgated thereunder at 40 C.F.R. § 52.21, and the Minnesota regulations which incorporate and/or implement the above-listed federal regulations in items (a) through (c); (d) all air permit requirements under Minn. R. 7007.0050-7007.1850; (e) air emissions fee requirements under Minn. R. 7002.0025-7002.0095; (f) performance standards for stationary sources under Minn. R. 7011.0010-7011.9990, performance tests under Minn. R. 7017.2001-7017.2060; (g) notification, recordkeeping and reporting requirements under Minn. R. 7019.0100-7019.2000; and (h) emission inventory requirements under Minn. R. 7019.3000-

7019.3100. For purposes of this Consent Decree, the "relevant time period" shall mean the period beginning when the United States' claims and/or Plaintiff-Intervenor's claims under the above statutes and regulations accrued through the date of entry of this Consent Decree. During the effective period of the Consent Decree, certain emission units shall be on a compliance schedule and any modification to these units, as defined in 40 C.F.R. § 52.21, which is not required by this Consent Decree is beyond the scope of this resolution of claims. This provision shall survive the termination of the Consent Decree.

59. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Defendant of its obligation to comply with all applicable federal, state and local laws and regulations. Subject to Paragraphs 40 and 58, nothing contained in this Consent Decree shall be construed to prevent or limit the United States' or MPCA's rights to obtain penalties or injunctive relief under the Act or other federal, state or local statutes or regulations, including but not limited to, Section 303 of the Act, 42 U.S.C. § 7603.

60. Third Parties. Except as otherwise provided by law, this Consent Decree does not limit, enlarge or affect the rights of any party to this Consent Decree as against any third parties. Nothing in this Consent Decree should be construed to create any rights, or grant any cause of action, to any person not a party to this Consent Decree.

61. Costs. Each party to this Consent Decree shall bear its own costs and attorneys' fees through the date of entry of this Consent Decree.

62. Public Documents. All information and documents submitted by the Defendant to the Plaintiffs pursuant to this Consent Decree shall be subject to public inspection, unless subject to legal privileges or protection or identified and supported as business confidential by the

Defendant in accordance with 40 C.F.R. Part 2 and Minnesota Statute §§ 13.37 and 116.075.

63. Public Comments - Federal Approval. The parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the requirements of 28 C.F.R. § 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and consideration of any comments. The United States reserves the right to withdraw or withhold consent if the comments regarding this Consent Decree discloses facts or considerations which indicate that this Consent Decree is inappropriate, improper or inadequate. The Defendant and the Plaintiff-Intervenor consent to the entry of this Consent Decree.

64. Notice. Unless otherwise provided herein, notifications to or communications with the United States, EPA, MPCA or the Defendant shall be deemed submitted on the date they are postmarked and sent either by overnight receipt mail service or by certified or registered mail, return receipt requested. Except as otherwise provided herein, when written notification to or communication with the United States, EPA, MPCA or the Defendant is required by the terms of this Consent Decree, it shall be addressed as follows:

As to the United States:

Thomas L. Sansonetti
Assistant Attorney General
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611

As to the U.S. EPA:

Bruce Buckheit
Director, Air Enforcement Division

U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code 2242-A
Washington, DC 20004

and the EPA Regional office for the region in which the facility is located:

Region 5:

Cynthia A. King
U.S. EPA, Region 5
C-14J
77 W. Jackson Blvd.
Chicago, IL 60604

Compliance Tracker
Air Enforcement Branch, AE-17J
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

As to Al-Corn Clean Fuel Cooperative:

Al-Corn
General Manager
P.O. Box 6
797 5th Street
Claremont, MN 55924

and

(Counsel for Al-Corn)

Gerald L. Seck
Larkin, Hoffman, Daly & Lindgren, Ltd.
1500 Wells Fargo Plaza
7900 Xerxes Avenue South
Bloomington, MN 55431

Peder A. Larson
Peder Larson & Associates, PLC
5200 Willson Road
Suite 150

Minneapolis, MN 55424

As to Plaintiff-Intervenor the State of Minnesota, through the MPCA:

Rhonda Land
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194

Kathleen L. Winters
Office of the Attorney General
NCL Towers Suite 900
445 Minnesota Street
St. Paul, MN 55101-2127

65. Change of Notice Recipient. Any party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address.

66. Modification. There shall be no modification of this Consent Decree without written agreement of all the parties. There shall be no material modification of this Consent Decree without the written agreement of the parties and by Order of the Court. Prior to complete termination of the requirements of this Consent Decree pursuant to Paragraph 68, the parties may, upon motion to the Court, seek to terminate provisions of this Consent Decree.

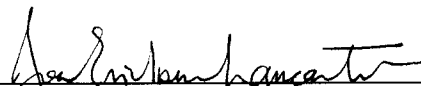
67. Continuing Jurisdiction. The Court retains jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Consent Decree, any party may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

XII. TERMINATION

68. This Consent Decree shall be subject to termination upon motion by any party

after the Defendant satisfies all requirements of this Consent Decree and has operated the control technologies identified in the approved Control Technology Plan in compliance with emission limits, and has demonstrated for 24 months that its actual emissions of VOCs, PM, PM₁₀, SO₂, NO_x and CO have remained under 95 TPY. For purposes of meeting the 24-month performance requirement in this Paragraph, Defendant may demonstrate that its actual emissions remained under the 95 TPY allowable emission caps by either using the results of its initial compliance tests or evidence of operating conditions since the installation of the control equipment required in this Consent Decree and in the approved Control Technology Plan. At such time, if the Defendant believes that it is in compliance with the requirements of this Consent Decree, and has paid the civil penalty and any stipulated penalties required by this Consent Decree, then the Defendant shall so certify to the Plaintiffs, and unless the Plaintiffs object in writing with specific reasons within forty-five (45) days of receipt of the certification, the Court shall order that this Consent Decree be terminated on Defendant's motion. If the United States or MPCA objects to the Defendant's certification, then the matter shall be submitted to the Court for resolution under Part X ("Dispute Resolution") of this Consent Decree. In such case, the Defendant shall bear the burden of proving that this Consent Decree should be terminated.

So entered in accordance with the foregoing this 7th day of March, 2002.



United States District Court Judge
District of Minnesota

FOR PLAINTIFF, UNITED STATES OF AMERICA:

Tom Sansonetti

Date 9.10.02

Thomas L. Sansonetti
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
10th & Pennsylvania Avenue, N.W.
Washington, DC 20530

Dianne M. Shawley

Date 8/23/02

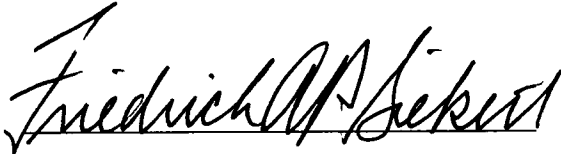
Dianne M. Shawley
Senior Counsel
Environment and Natural Resources Division
U.S. Department of Justice
1425 New York Avenue, N.W.
Washington, DC 20005

Cynthia A. King

Date 8/23/02

Cynthia A. King
Special Trial Attorney
US EPA Region 5
77 W. Jackson Street
Chicago, IL 60604

United States Attorney
District of Minnesota

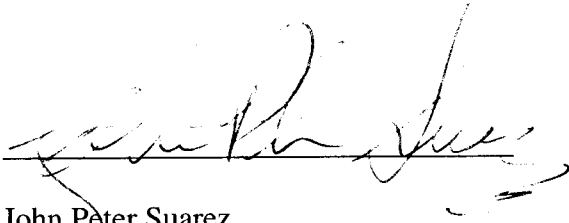


Date 10/1/02

THOMAS B. HEFFELFINGER
United States Attorney

BY: FRIEDRICH A. P. SIEKERT
Assistant U.S. Attorney
Attorney ID No. 142013
District of Minnesota
U.S. Courthouse
300 S. 4th Street
Suite 600
Minneapolis, MN 55415

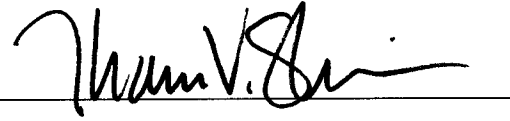
FOR U.S. ENVIRONMENTAL PROTECTION AGENCY:



Date 9/20/02

John Peter Suarez
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

FOR U.S. ENVIRONMENTAL PROTECTION AGENCY:



Handwritten signature of Thomas V. Skinner, written in black ink over a horizontal line.

Date 9.20.02

Thomas V. Skinner
Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 West Jackson Street
Chicago, IL 60604

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF MINNESOTA POLLUTION CONTROL AGENCY:

Karen A. Studders

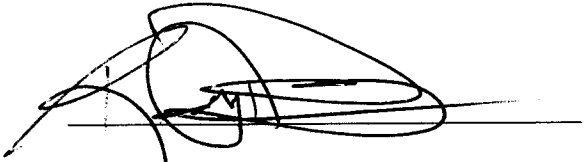
Date *1 October 2022*

Commissioner Karen A. Studders
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Date _____

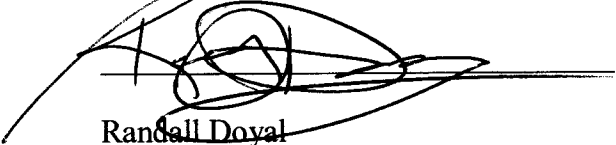
Kathleen L. Winters
Office of the Attorney General
NCL Towers Suite 900
445 Minnesota Street
St. Paul, MN 55101-2127

FOR DEFENDANT, AL-CORN CLEAN FUEL COOPERATIVE AND AL-CORN CLEAN FUEL LIMITED PARTNERSHIP:



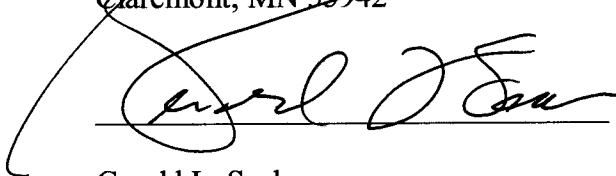
Randall Doyal
General Manager
Al-Corn Clean Fuel Cooperative
P.O. Box 6
Claremont, MN 55942

Date August 14, 2002



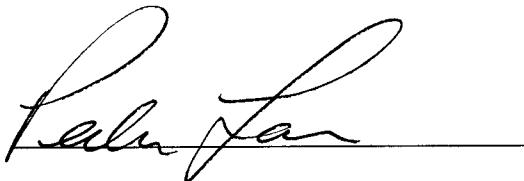
Randall Doyal
Chief Executive Officer
Al-Corn Clean Fuel Limited Partnership
P.O. Box 6
Claremont, MN 55942

Date August 14, 2002



Gerald L. Seck
Larkin, Hoffman, Daly & Lindgren, Ltd.
1500 Wells Fargo Plaza
7900 Xerxes Avenue South
Bloomington, MN 55431

Date 8-23-02



Peder A. Larson
Peder Larson & Associates, PLC
5200 Willson Road
Suite 150
Minneapolis, MN 55424

Date 8-23-02

Al-Corn Clean Fuel

Claremont, Minnesota

Control Technology Plan

August 22, 2002

CONTENTS

1.0 INTRODUCTION	1-1
2.0 EMISSION UNITS REQUIRING POLLUTION CONTROL EQUIPMENT.....	2-1
3.0 ENGINEERING DESIGN CRITERIA FOR POLLUTION CONTROL EQUIPMENT	3-1
4.0 PROPOSED EMISSION LIMITS FROM POLLUTION CONTROL EQUIPMENT	4-1
4.1 Alternative Operating Scenarios	4-5
5.0 POLLUTION CONTROL EQUIPMENT INSTALLATION SCHEDULE	5-1
6.0 PROPOSED MONITORING PARAMETERS FOR POLLUTION CONTROL DEVICES	6-1
7.0 POLLUTION CONTROL DEVICE PERFORMANCE TEST SCHEDULE AND METHODS	7-1
8.0 FUGITIVE DUST EMISSION CONTROL PROGRAM.....	8-1

1.0 INTRODUCTION

On August 14, 2002, Al-Corn Clean Fuel (Al-Corn) signed a consent decree that requires Al-Corn to implement a program of compliance at the corn dry mill ethanol plant it operates in Claremont, Minnesota. Al-Corn prepared and submits this Control Technology Plan (CTP) as an integral part of the consent decree. This CTP fulfills the requirement of the consent decree and has been reviewed and approved by the US Environmental Protection Agency (USEPA) and the Minnesota Pollution Control Agency (MPCA) as part of the consent decree.

Al-Corn's CTP includes the following:

- (a). Identification of all units to be controlled;
- (b). Engineering design criteria for all proposed controls capable of meeting the emission levels required by Part V of the Consent Decree;
- (c). Proposed short-term and long-term emission limits and controlled outlet concentrations for each pollutant as appropriate;
- (d). A schedule for expedited installation with specific milestones applicable on a unit-by-unit basis;
- (e). Proposed monitoring parameters for all control equipment and parameter ranges;
- (f). Identification of all units to be emission tested under Paragraph 15 of the Consent Decree and a schedule for initial tests and retest;
- (g). The test methods that will be used to demonstrate compliance with the emissions levels set forth in the Consent Decree; and
- (h). Program for minimization of fugitive dust emissions from facility operations.

2.0 EMISSION UNITS REQUIRING POLLUTION CONTROL EQUIPMENT

The following emission units, fugitive sources, and control equipment have been designated as affected units in the consent decree and have emission limits requiring pollution control technology.

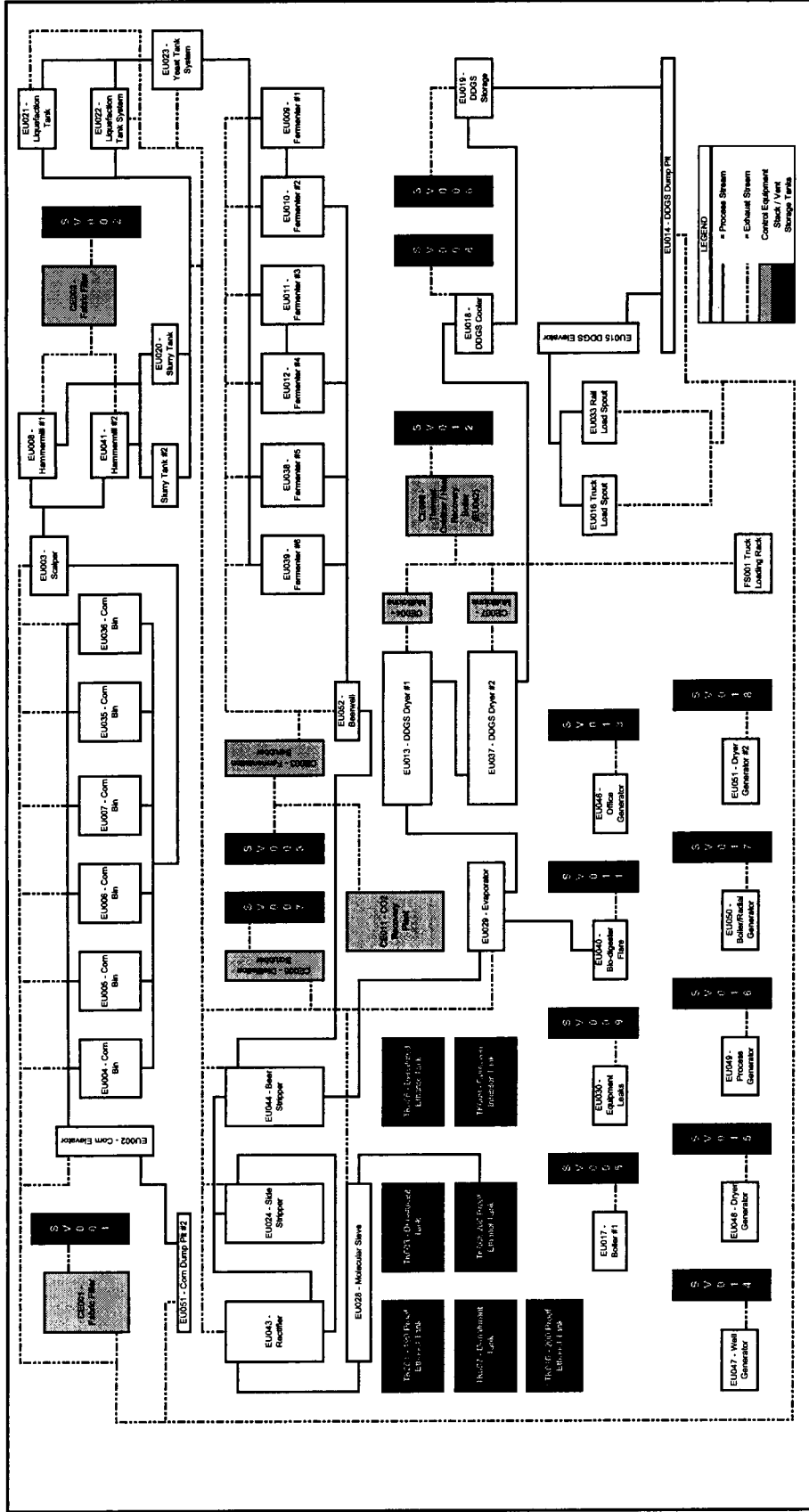
Unit Designation	Unit Description	CE	CE Description
EU 009	Fermenter #1	003	scrubber
EU 010	Fermenter #2	003	scrubber
EU 011	Fermenter #3	003	scrubber
EU 012	Fermenter #4	003	scrubber
EU 013	DDGS Dryer #1 (B)	004, 006, 007	Multicyclones and TO
EU 017	Boiler	NA	NA
EU 018	Cooling Cyclone	NA	Cyclone (PM) TBD (VOC)
EU 020	Slurry Tank	005	scrubber
EU 021 and EU 022	Liquifaction System	005	scrubber
EU 023	Yeast Propagation	005	scrubber
EU 024	Side Stripper	005	scrubber
EU 028	Molecular Sieve System	005	scrubber
EU 029	Evaporator	005	scrubber
EU 032	Process Water Tank	003	scrubber
EU 037	DDGS Dryer #2 (A)	004, 006, 007	Multicyclones and TO
EU 038	Fermenter #5	003	scrubber
EU 039	Fermenter #6	003	scrubber
EU 042	Thermal Oxidizer /Heat Recovery Boiler	006	TO
EU 043	Rectifier	005	scrubber
EU 044	Beer Stripper	005	scrubber
EU 045	Fermenter #7	003	scrubber
EU 052	Beerwell	003	scrubber
FS 001	Loading Rack	006	TO
FS 002	Truck Traffic	NA	Paved roads
FS 004	Valve, Flange, & Seal Fugitives	NA	LDAR

3.0 ENGINEERING DESIGN CRITERIA FOR POLLUTION CONTROL EQUIPMENT

After identifying the affected units that require installation of air pollution control technology, Al-Corn conducted a design and engineering review of each unit to select the pollution control technology that would achieve the emission level reductions identified in the consent decree.

Process Description	Control Device #	Control Device Description	Operating Parameters
Fermentation Scrubber	CE 003	Packed Bed Scrubber	Exhaust flow rate: 4500 cfm Water flow rate \geq 11.7 gal/min.
DDGS Dryer #1, DDGS Dryer #2, Ethanol Truck Loadout	CE 006	Thermal Oxidizer for VOC, CO and PM/PM ₁₀ control Thermal oxidizer has low NO _x burners	Exhaust flow rate: 60,000 Residence time: 0.7 to 1.4 seconds Combustion chamber orientation Operating temperature: 1300 to 1500 °F Design fuel input rate: 95 MMBtu/hr NO _x Emission Rate: 0.04 lb/MMBtu
DDGS Cooling Cyclone	EU 018	TBD	Pressure drop between 2 and 8 inches of water column
Boiler #1	EU 017	Low NO _x burners	Design fuel input rate: 60 MMBtu/hr NO _x Emission Rate: 0.055 lb/MMBtu

The attached flow diagram presents the affect units and associated control technology as determined by the results of engineering design criteria.



BERG

DATE: 8/1/02
 REVISED:
 SCALE: NTS
 DRAWN BY: WYVONSEE
 G:\Clients\Cleant A\LAL-CORMACT001-005\DelvMinor

GI-02
Process Flow Diagram
Al-Corn Clean Fuel
 Claremont, Minnesota

Bethlehem
Better Fuel. Cleaner Air.

4.0 PROPOSED EMISSION LIMITS FROM POLLUTION CONTROL EQUIPMENT

Unless otherwise stated, all controlled emission limitations apply at all times except during periods when the process equipment is not operating or during previously planned startup and shutdown periods, and malfunctions as defined in 40 CFR section 63.2. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, Al-Corn shall minimize emissions to the greatest extent practicable. To the extent practical, startup and shutdown of control technology systems will be performed during times when process equipment is also shut down for routine maintenance.

In addition to the limits listed below, all emission sources will comply with a 12-month rolling sum source wide SO₂ cap of 95 TPY.

Any deviation from the requirements in 4.0 and/or 4.1 shall be reported in the quarterly reports and as required under other state and federal rules.

Process Description	Control Device	Control Device Description	Pollutant	Short Term Emission Rate	Long Term Emission Rate
Fermentation Scrubber	CE 003	Packed Bed Scrubber	VOC	95% reduction or <20 ppm if inlet concentration is below 200 ppm; lb/hr limits to be established based on performance testing under the process outline under Paragraph 24 in the Consent Decree.	12-month rolling sum total facility VOC emission rate equal to the 95 ton emissions cap.
			HAPs		12-month rolling sum total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.

Process Description	Control Device	Control Device Description	Pollutant	Short Term Emission Rate	Long Term Emission Rate
Boiler #1	EU 017	Low NO _x Burners	NO _x		12-month rolling sum source wide NO _x cap of 95 TPY and 12-month rolling sum Dryer #1 and #2, TO, and Boiler #1 Group NO _x cap of 41.7 TPY (See Attachment 2)
NO _x Unit Group Cap	EU013 EU017 EU037 EU042	Low NO _x Equivalent	NO _x		12-month rolling sum source wide NO _x cap of 95 TPY and 12-month rolling sum Dryer #1 and #2, TO, and Boiler #1 Group NO _x cap of 41.7 TPY (See Attachment 2)
Cooling Cyclone	EU018	TBD	VOC	To be established pursuant to paragraph 22 of the Consent Decree	12-month rolling sum source wide VOC cap of 95 TPY
Truck Loadout	CE006	TO	VOC		12-month rolling sum source wide VOC cap of 95 TPY
DDGS Dryer #1, DDGS Dryer #2, Ethanol Truck Loadout	CE 004 CE 007 CE 006	Dryer#1 and #2 multiclone for PM/PM ₁₀ control Thermal Oxidizer for VOC, PM/PM ₁₀ and CO control Thermal oxidizer has low NO _x burners.	CO	90% reduction or emission no higher than 100 ppm	12-month rolling sum source wide CO cap of 95 TPY.

Process Description	Control Device #	Control Device Description	Pollutant	Short Term Emission Rate	Long Term Emission Rate
			NO _x		12-month rolling sum source wide NO _x cap of 95 TPY and 12-month rolling sum Dryer #1 and #2, TO, and Boiler #1 Group NO _x cap of 41.7 TPY (See Attachment 2)
			PM/PM ₁₀	Test and set pursuant to paragraph 24 of the Consent Decree	12-month rolling sum total facility PM/PM ₁₀ cap of 95 tpy.
			VOC	95% reduction or 10 ppm outlet concentration; lb/hr limits to be established based on performance testing under the process outline in paragraph 24 under the Consent Decree.	12-month rolling sum total facility VOC cap of 95 tpy.
			HAPs		12-month rolling sum total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.

For all source-wide emission limits during the first 11 months of operation, the facility will maintain the following source-wide limits in Tons Per Year:

	Mo 1				Mo 2	Mo 3	Mo 4	Mo 5	Mo 6	Mo 7	Mo 8	Mo 9	Mo 10	Mo 11
	WK1	WK2	WK3	WK4										
Source wide VOC, CO, NOx and PM/PM10	12				24	36	45	56	64	72	80	84	88	92
NOx for Boiler #1, Dryers #1, #2, and TO	2	3	4	5	10	15	20	25	30	34	36	38	40	41
Individual HAP/	1.6/				3.2/	4.0/	4.8/	5.6/	6.4/	7.2/	8.0/	8.2/	8.5/	8.8/
Total HAPs	3.0				6.0	9.0	12	14	16	18	20	21	22	23

Recordkeeping

Record fuel usage daily for each unit subject to the NO_x group emissions cap. Calculate the NO_x group emissions from the previous week and the NO_x Group emissions from the previous 51 weeks (52 week rolling sum). Calculate the total 52-week rolling sum for NO_x emissions from all units according to Equation 1:

$$\sum_{i=1}^n E_{n_i} = \sum_{i=1}^x \left[NG_{x_i} \left(\frac{MMBtu}{week} \right) \cdot EF_x \left(\frac{lb}{MMBtu} \right) \cdot 0.0005 \left(\frac{ton}{lb} \right) \right] \quad \text{Eqn 1}$$

where:

x = number of units;

n = number of weeks of interest;

$\sum_{i=1}^n E_{n_i}$ = sum of weekly NO_x emissions from unit x (tons/52 weeks);

NG_{x_i} = i^{th} week natural gas usage of emission unit x (MMBtu/week); and

EF_x = unit specific emission factor determined by stack testing.

4.1 Alternative Operating Scenarios

- Ethanol truck load out shall be vented to the control equipment at any time the control equipment is in operation. Ethanol truck load out shall be limited to 4 million gallons per year of uncontrolled operation.

5.0 POLLUTION CONTROL EQUIPMENT INSTALLATION SCHEDULE

The control equipment specified in this CTP will be installed and operational by October 1, 2002, unless modifications to a burner or additional paving of interior plant roads are required. If additional paving is required, this will be completed by September 1, 2003. See Attachment 1 for a map showing the unpaved sections of the facility. Deviations shall be reported quarterly or more frequently if required by state and Federal rules.

6.0 PROPOSED MONITORING PARAMETERS FOR POLLUTION CONTROL DEVICES

The consent decree requires that monitoring parameters be established for affected pollution control devices. Al-Corn is proposing the following monitoring parameters for each of the affected pollution control devices. Any deviations of monitoring frequency and/or operating ranges shall be reported in quarterly reports unless more frequent reporting is required by state or federal regulations.

Control Device #	Control Device Description	Parameter Monitored	Operating Range	Monitoring Frequency
CE 003	Fermentation Scrubber	Pressure Drop and Water Flow Rate	2 to 12 inches of water column At least 11.7 gallons water per minute	Continuously and recorded once Daily when operating
CE 006	Thermal Oxidizer	Operating temperature	At least 1300 F combustion chamber	Continuously with low temperature alarm
FS 005	Leak Detection	As stated in 40 CFR Subpart VV	As stated in 40 CFR Subpart VV	As stated in 40 CFR Subpart VV
EU066	DDGS Dryer	Syrup Feed	TBD	24-hour average
		Beer Feed	TBD	24-hour average
NO _x Group EU013 EU017 EU037 EU042	DDGS Dryer #1 Boiler DDGS Dryer #2 TO	Fuel Usage		Weekly monitor and record fuel usage and type for each unit, calculate NO _x emissions weekly based on latest stack test data

7.0 POLLUTION CONTROL DEVICE PERFORMANCE TEST SCHEDULE AND METHODS

The following schedule and methods will be used to demonstrate initial compliance with the emission limits contained in Section 4.0 of this Control Technology Plan.

AI-Corn shall conduct the following performance testing pursuant to the Consent Decree schedule. The CD states that no later than 180 days following the start-up of the last piece of control equipment required in the approved Control Technology Plan, AI-Corn shall demonstrate through emissions testing of each emissions unit as specified in the approved Control Technology Plan, conducted in accordance with the MPCA and U.S. EPA approved test protocol, that it has met the required destruction efficiency and/or emission limit. AI-Corn shall follow all testing requirements in Minnesota Rule 7017.

Process Description	Unit / Control Device #	Unit/Control Device Description	Pollutants	Proposed Method
Fermentation Scrubber	CE 003 / SV003	Packed Bed Scrubber	VOC Inlet and Outlet, Speciated VOCs/HAPs	Method 1, 2, 3A, 4, Method 18 NCASI CI/WP-98.01 and VOC test method as approved by the parties in the Performance Test Plan Protocol.
Boiler	EU 017 / SV005		NOx	Method 1, 2, 3B, 4, and 7E
			CO	Method 10
DDGS Cooling Cyclone	EU 018 / SV008	TBD	VOC Outlet, Speciated VOCs/HAPs	Method 1, 2, 3B, 4, Method 18 NCASI CI/WP-98.01 and 25 (unless the outlet concentration is < 50 ppm, then 25A will be used)

Process Description	Unit Control Device	Unit Control Device Description	Pollutants	Proposed Methods Used
DDGS Dryer #1, DDGS Dryer #2, Thermal Oxidizer, Ethanol Truck Loadout	CE 004, CE007	Dryer#1 and #2 multiclone for PM/PM ₁₀ control	CO Inlet and Outlet	Method 1, 2, 3B, 4, and 10
			NO _x	Method 1, 2, 3B, 4, and 7E
	CE 006 SV012	Thermal Oxidizer for VOC, PM/PM ₁₀ , and CO control, and confirmation of the NO _x emission factor.	PM/PM ₁₀ Outlet	Method 1, 2, 3B, 4, 5 and 202
			VOC Inlet	Method 1, 2, 3B, 4, 25 (unless the outlet concentration is < 50 ppm, then 25A will be used)
			VOC Outlet, Speciated VOCs/HAPs	Method 1, 2, 3B, 4, Method 18 NCASI CI/WP-98.01 and 25 (unless the outlet concentration is < 50 ppm, then 25A will be used)

8.0 FUGITIVE DUST EMISSION CONTROL PROGRAM

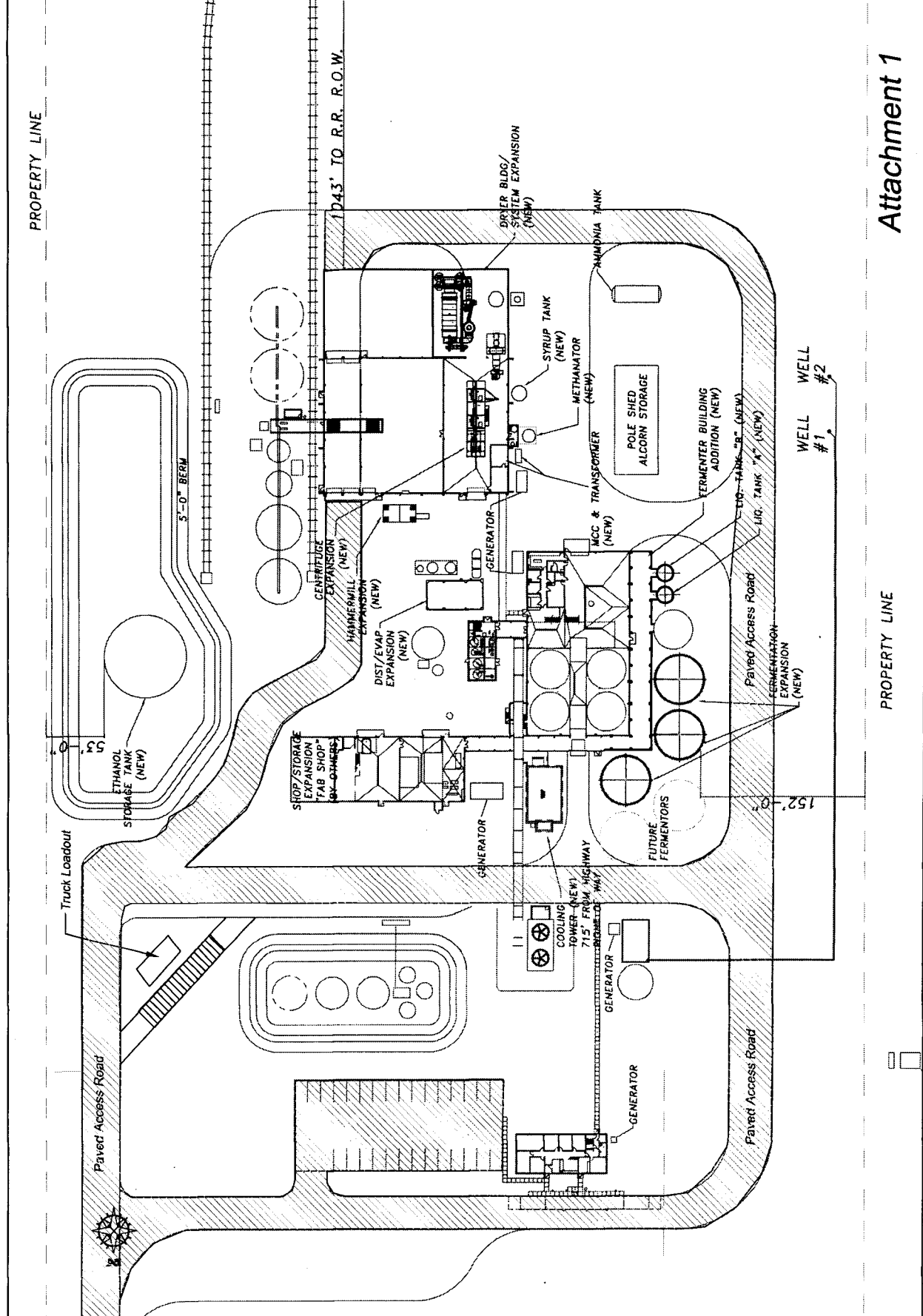
The objectives of the Fugitive Control Program are to prevent and minimize the release of avoidable fugitive emissions as required by the consent decree. The Program describes the procedures AI-Corn will use to control emissions, to determine when emissions are at levels requiring corrective action, and to reduce excessive emissions to acceptable levels.

- AI-Corn has paved existing roads (all normal traffic routes) that are used for truck and car traffic (see map).

AI-Corn will implement the following actions to minimize fugitive dust emissions

- AI-Corn will perform weekly visual inspections of the roads.
- AI-Corn will document the inspection was performed and describe any corrective action taken.
- AI-Corn will use water or mechanical means of removal to minimize identified fugitive dust emissions.

Any deviations to short term or long term emission limits to be reported in quarterly reports unless more frequent reporting is required by state or federal regulations.



The drawing (hard copy or electronic file) is the property of IGM, Inc. and shall remain the property of IGM, Inc. unless otherwise stated. IGM, Inc. shall not be held responsible for any errors or omissions in this drawing. The recipient shall keep confidential and shall not disclose the information contained herein. It must be used only for the project and site for which it was prepared.

Attachment 1

PROPERTY LINE

WELL #1
WELL #2

**Al-Corn
Emission Calculations for Dryers, Boiler and TO NOx Limit**

All units burning only pipeline quality natural gas for 344 days per year
 Assume 0.04 lbs/MMBtu average emission factor and 8260 hours of operation per year.

Boiler and dryers burning propane for 500 hours per year, all other units burning pipeline quality natural gas
 Assume 0.08 lbs/MMBtu for propane fired units and 0.04 lbs/MMBtu for natural gas and 500 hours of operation per year.

Source	Capacity (MMBtu/hr)
Dryer #1	30
Dryer #2	45
TO	95
Boiler #1	60
Total	230

0.04 lbs/MMBtu X 230 MMBtu/hr =

NOx	lbs/hr	TPY
	9.2	38.0
	14.6	3.7
		41.7

Source	Capacity (MMBtu/hr)
Dryer #1	30
Dryer #2	45
TO	95
Boiler #1	60
Total	230

0.04 lbs/MMBtu X 95 MMBtu/hr =
 0.08 lbs/MMBtu X 135 MMBtu/hr =

Natural gas
Propane
Total

[docket]

CIVIL/CRIMINAL

[vfmadr]

1. Docket

[ADDR]

Processing form: Checks Addressees

Docket # : 0:2 -cv-3792

Short Title: USA

v. Al-Corn Clean Fuel

REFER

Type: cv

Judge: Lancaster

Magistrate: Erickson

-----Event-----Action-----Relief-----Trans #-----

1 - - | - | - - | 1615233

**** Form: Old Labels

***** party

Direct Addressees in Case: 0:02-cv-03792 *****

Ord Name

Term

- 1. Siekert
- 2. Sansonetti
- 3. Shawley
- 4. King
- 5. Puchalski
- 6. Larson

- Friedrich
- Thomas
- Dianne
- Cynthia
- Connie
- Peder

COURIER

MAILED

NOT SCANNED

[A]cc, [S]lct, [E]vry, [C]lr, [I]ns, [M]ore, [U]p/[D]n, [N]x/[P]v, [Q]uit
total: 7 selected: 0 current: 1 :

[docket]

CIVIL/CRIMINAL

[vfmadr]

3. Docket

[ADDR]

Processing form: Checks Addressees

Docket # : 0:2 -cv-3792

Short Title: USA

v. Al-Corn Clean Fuel

REFER

Type: cv

Judge: Lancaster

Magistrate: Erickson

-----Event-----Action-----Relief-----Trans #-----

1 - - | - | - - | 1615233

**** Form: Old Labels

***** party

Direct Addressees in Case: 0:02-cv-03792 *****

Ord Name

Term

- 7. Winters

- Kathleen

MAILED

[A]cc, [S]lct, [E]vry, [C]lr, [I]ns, [M]ore, [U]p/[D]n, [N]x/[P]v, [Q]uit
total: 7 selected: 0 current: 7 : n

Exhibit 3

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

UNITED STATES OF
AMERICA,

Plaintiff,

and

MINNESOTA POLLUTION CONTROL
AGENCY,

Intervenor Plaintiff

v.

AL-CORN CLEAN FUEL
COOPERATIVE,

Defendant.

Civil Action No.

CV02-3792 (~~JEL/JGL~~)

JNE/RLE

ORDER

This matter is before the court upon the unopposed motion of Defendant and Supporting Affidavit of Defendant's Counsel, Gerald L. Seck.

UPON UNOPPOSED MOTION of Defendants, the Court hereby orders that the Consent Decree entered in this matter on March 7, 2003, is hereby terminated.

IT IS SO ORDERED.

Dated: 12-9-05


UNITED STATES DISTRICT COURT JUDGE

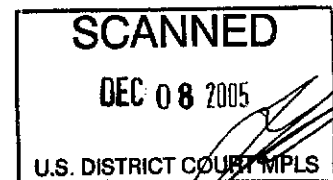


Exhibit 4

10/30/98

(AR-18J)

Robert F. Hodanbosi, Chief
Division of Air Pollution Control
Ohio Environmental Protection Agency
1800 WaterMark Drive
Columbus, Ohio 43215-1099

Dear Mr. Hodanbosi:

This letter is in response to your letter dated October 2, 1998, proposing the option of expanding the credible evidence boilerplate language in your Title V permits. I understand from your letter as well as conversations on September 22, 1998 and October 7, 1998, that the regulated community in Ohio has concerns with the current language and some groups have verbally informed you that they may appeal their Title V permit if the language is not removed.

It is the United States Environmental Protection Agency's (USEPA) position that the general language addressing the use of credible evidence is necessary to make it clear that despite any other language contained in the permit, credible evidence can be used to show compliance or noncompliance with applicable requirements. Permit provisions containing testing or monitoring requirements sometimes represent instances where a regulated entity could construe the language to mean that the methods for demonstrating compliance specified in the permit are the only methods admissible to demonstrate violation of the permit terms. It is important that Title V permits not lend themselves to this improper construction.

It is also important to note, however, that since its initial promulgation in 1992, part 70 has required sources certifying compliance with terms and conditions in their operating permits to consider information other than data from reference test methods in providing certifications that are true, accurate and complete. See, e.g., 40 CFR § 70.5(d) (requiring compliance certifications to be true, accurate, and complete "based on information and belief formed after reasonable inquiry"); § 70.6(a)(3) (discussing required monitoring, recordkeeping, and reporting in part 70 permits); § 70.6(c)(5) (1997) & § 70.6(c)(5) (1998) (compliance certification requirements of part 70 before and after Compliance Assurance Monitoring rule revisions to part 70); see also 62 Fed. Reg. 8314, 8319-20 (Feb. 24, 1997). Therefore, prior to and independent of the credible evidence rule and the concerns expressed by the regulated community with that rule, part 70 already required responsible officials to consider non-reference test data in certifying compliance, and part 70 permit terms may not alter nor impede that requirement.

Having explained the importance of including the credible evidence general language currently contained in the Title V permits the Ohio Environmental Protection Agency (OEPA) issues, USEPA does not believe that it is appropriate to include in Title V permits the additional language you propose in your October 2 letter. The

background of this court decision does not belong in Title V permits. The Title V permit is designed to include the requirements for the subject source, not the historical and legal background for those requirements. In addition, the decision did not affect the validity of EPA's Title V regulations or any permits issued thereunder. However, neither the credible evidence rule nor the inclusion of general credible evidence language in a Title V permit waives the permittee's right to challenge either the credible evidence rule, or the admissibility or credibility of particular evidence in individual adjudications. I believe the concerned parties you mention in your letter are aware of the court decision and their rights preserved in the ruling, and would have the opportunity to exercise those rights if the appropriate situation arose. For the reasons listed above, it is USEPA's position that the numerous requests for hearings before the Director of OEPA are unfounded.

I hope that this letter clarifies USEPA's position with respect to the need for credible evidence boilerplate language and assists OEPA with any hearings that may result from the issuance of Title V permits containing such language. If you have any questions regarding this letter, please contact Genevieve Damico, of my staff, at (312) 353-4761.

Sincerely yours,

/s/

Cheryl L. Newton, Acting Chief
Air Programs Branch

Exhibit 5

July 28, 1998

Paul Dubenetzky, Branch Chief
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Dear Mr. Dubenetzky:

The purpose of this letter is to inform you of the United States Environmental Protection Agency's (USEPA) concerns regarding the inclusion of supersession condition and credible evidence language in Title V permits. The topic of supersession has developed into a national issue with concerns over the legal consequences of incorporating such language into permits. The specific concerns with Indiana's permit program and possible steps for resolution are outlined immediately below. Credible evidence has also gained national significance because the language can be construed as allowing only specified testing and monitoring methods to be used to demonstrate violations of or compliance with permit terms and conditions. However, as underscored by the credible evidence rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), the Clean Air Act provides that USEPA, the State, and citizens, including the source itself, may use any credible evidence for these purposes.

Supersession:

A Title V permit incorporates into one document and provides for the implementation of all applicable requirements of the Clean Air Act that apply to a permit holder. 40 C.F.R. § 70.2 defines "applicable requirement" as, among other things, "(2) Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D, of the Act...." By definition, "applicable requirements", such as preconstruction permit conditions, need to exist apart and independent of the Title V permit. Rescission of an underlying preconstruction permit by the terms of a Title V permit could result in the nullification of the terms of the preconstruction permit as "applicable requirements" which must be incorporated into future Title V permits. When a term or condition no longer exists in a preconstruction permit, the term or condition may no longer be an applicable requirement, as defined by the Part 70 regulations. Once a Title V permit superseded previous preconstruction permits, there may be no legal basis for incorporating any conditions which were inadvertently overlooked or for maintaining

conditions when the Title V permit was renewed. Therefore, preconstruction permits should not be superseded.

Indiana has been issuing Title V permits with a supersession condition in A.5 under Source Summary. The condition states that:

The terms and conditions of this permit incorporate all the current applicable requirements for all emission units located at this source, and supersede all terms and conditions in all registrations and permits, including construction permits, issued prior to the effective date of this permit. All terms and conditions in such registrations and permits are no longer in effect.

Pursuant to this condition, the Title V permit automatically supersedes any previously issued construction permit and/or operating permit. Furthermore, it is my understanding that the Indiana Department of Environmental Management (IDEM) would allow a source's state operating permit to expire once the source was issued a Title V permit. This would similarly cause concerns because the applicable requirements would no longer exist outside the Title V permit. As with permits to construct, once a state operating permit is superseded or expired, there may be no legal basis for incorporating or maintaining the conditions of the superseded permit into the Title V permit. Neither Title V (Subchapter V of the Clean Air Act as amended) nor its implementing regulations provide the permitting authority with the authority to create applicable requirements through the Title V permitting process.

Along with the supersession language found in Indiana's Title V permits, my staff have identified specific rule provisions which complicate the supersession issue. 326 IAC 2-1-4 contains the state operating permit rules. A non-SIP approved part of the rules states that sources subject to 2-7, 2-8, or 2-9 shall comply with those rules instead of the state operating permit rules, thereby eliminating the requirement for a state operating permit if a source is subject to Part 70. Also, 326 IAC 2-7-2(f), which was approved as part of the original Part 70 submittal, states that a Part 70 source is exempt from the requirement to have a state operating permit once the Title V permit is effective. Again, this language eliminates the need for the source to have a state operating permit. When the source's construction and operating permits disappear, only the Title V permit will exist. As a result, there may be no requirement to keep the construction and operating permit terms in the Title V permit, since they may no longer exist as applicable requirements.

It is my understanding that IDEM would like to include language in its Title V permits to alleviate the regulated community's concern about enforcement of multiple permits or requirements. Title V is designed to be the primary enforcement tool which incorporates all applicable requirements into one document. As we discussed, Indiana may incorporate the following language into the permit shield condition immediately before B.14(a)(1)&(2):

This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance.

Adding the language to the permit shield condition will ensure that supersession concerns are avoided by limiting the language to applicable requirements which have been specifically identified in the permit and to determinations in the permit which specifically identify other applicable requirements as not applicable, while addressing the regulated community's concerns with multiple permit requirements.

In the long term, national policy on supersession will require certain changes in the rules discussed above so that the State operating permit, which contains the applicable requirements, will not disappear. Possible solutions may involve making permanent the state operating permit. Also, the State may wish to consider developing a merged state operating/Title V permit program or even a merged state operating/construction/Title V program, such that the renewal of all permits can be done concurrently. In this case, the Title V permit would also be, in effect, the state operating and/or construction permit. My staff is available to assist you in exploring options to address these underlying concerns, and, again, we will be continuing to appraise you of national efforts. In the meantime, you should be aware that USEPA intends to object to any permits containing supersession language.

Credible Evidence:

With respect to credible evidence, IDEM has been drafting and proposing Title V permits which include several examples of language which may preclude the use as evidence testing or monitoring other than that specified in the Title V permit. Such examples can be found in various sections of the model Title V permit, including sections D.4.4. (Section D.4.4. provides that "[c]ompliance shall be determined utilizing one of the following options.;" "A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.") and D.1.7, (Section D.1.7. provides that "[c]ompliance with the VOC content

and usage limitations contained in Conditions D.x.x and D.x.x shall be determined pursuant to 326 IAC 8-1-2(a)(7) using formulation data supplied by the coating manufacturer."). This language makes it possible for a permitted source to assert that the methods for demonstrating compliance specified in the permit are the only methods admissible to demonstrate violation of the permit terms. In order to make clear the authority to use other evidence to prove compliance or noncompliance, USEPA believes this language must be removed from permits.

For these reasons, USEPA will object to any Title V permit which IDEM proposes to issue, which contains such "credible evidence buster" language. The USEPA suggests that, in addition to removing the above-referenced language from permits, IDEM should include in each permit general language providing for the use of other credible evidence. This phrase would give the source notice that any person could rely upon any credible evidence to prove the source's compliance status. An example of such a phrase is:

"Notwithstanding the conditions of this permit that state specific methods that may be used to assess compliance or noncompliance with applicable requirements, other credible evidence may be used to demonstrate compliance or noncompliance."

If IDEM would like to use an alternate method or text, USEPA would be willing to explore options which will resolve this issue expeditiously.

If you have any questions or wish to discuss these issues further, please call Pallavi Reddy or Alvin Choi, of my staff, at (312)886-6204 or (312)886-3507.

Sincerely yours,

/s/

Stephen Rothblatt, Acting Director
Air and Radiation Division

Acronym information on page 3

Instructions: This form is used for Minnesota Pollution Control Agency (MPCA) internal use by Air Dispersion Modelers, Permit Engineers, and Risk Assessors to review modeling results.

Note: If results are marked not approved, please use the AQDM-06 form to resubmit. Updated AQDM-06 forms and updated attachments should be emailed to: AirModeling.PCA@state.mn.us. If files are too large to email, please mail a CD with the files to:

Air Quality Permit Document Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Facility information

Tempo AI ID number: 4665 AQ facility/permit ID number: 03900028 Submittal date (mm/dd/yyyy): 03/12/2021
Three-letter modeling facility ID (ex., XEK = Xcel Energy Allen S. King, MEC = Mankato Energy Center, etc.): ACF
Facility name: Al-Corn Clean Fuel
Facility street address: 797 5th Street
City: Claremont County: Dodge State: MN Zip Code: 55294
Facility contact: Jacque Parenteau Report prepared by: Katie Hill Brandt, PE
Facility contact phone: 507-681-7106 Preparer phone: 612-466-2408
Facility contact email: jparenteau@al-corn.com Preparer email: khillbrandt@merjent.com
UTM coordinates of facility (NAD83, zone 15 extended only): x = 498,590.86 m East, y = 4,877,356.01 m North
MPCA Air Dispersion Modeler: David Brown MPCA Air Permit Engineer: Megan Dalbec
MPCA Air Risk Assessor: N/A

List of files with names/descriptions submitted with modeling results

- AERMOD input files (*.inp, *.adi, *.ami)
 AERMOD output files (*.out, *.ado, *.amo)
 AERMOD plot files (*.plt)
 AERMOD post files (*.pst) – If applicable
 AERMOD event files (*.evi, *.evo) – If applicable
 AERMOD miscellaneous/other files (MAXDCONT, SUMTABLE, etc.) – If applicable
- AERMOD meteorological surface files (*.sfc)
 AERMOD meteorological upper air/profile files (*.pfl)
- BPIP-PRIME input files (*.bpi, *.pip)
 BPIP-PRIME output files (*.bpo, *.sum)
- Terrain file(s) for AERMAP (*.dem, *.tif)
 AERMAP input files (*.ami)
 AERMAP output files (*.rou, *.sou, etc.)
- Background data files/background concentrations for applicable pollutants (seasonal, monthly, daily, hourly, etc.)

6. Figures for modeling results (*.jpeg, *.bmp, *.pdf)
- GIS maps for modeling results (*.shp)
7. AQDM-02 form – if applicable (not applicable if changes were not made)
8. Paved Roads Results – If applicable
9. SIL Analysis and Results – If applicable
10. Hourly O₃ File – If applicable
11. AERA forms – If applicable
12. Other files and supporting documents (hourly ozone, background files, supplements, etc.):

THI data file for determining when non-emergency generators operate

NO₂ in-stack-ratio design information

Nearby source emissions data

Section 1. Modeling review – 30-day substantial completeness determination

Completeness review of modeling report by sections

Section and section name	Substantially complete/incomplete	Deficiencies and/or comments	
Files to accompany modeling	Substantially Complete	Approved General Public Preclusion Plan submitted via email on 02/17/2021. Modeling report and required modeling files resubmitted via email on 06/22/2021. Edits to emission rates for PM _{2.5} annual modeling requested on 09/02/2021. Updated files were submitted on 09/16/2021.	
Section 1: Modeling protocol	Substantially Complete	No comments on this section	
Section 2: Changes to modeling protocol	Substantially Complete	No comments on this section	
Section 3: Paved roads fugitive dust (optional)	Substantially Complete	No comments on this section	
Section 4: Modeling results	Substantially Complete	No comments on this section	
Section 5: Discussion	Substantially Complete	No comments on this section	
Section 6: Modeling results figures/maps	Substantially Complete	No comments on this section	
Modeling results substantially complete?	Substantially Complete	Date (mm/dd/yyyy):	09/17/2021

Section 2. Air dispersion modeler results review

Technical review of final modeling report

Review items	Acceptable/ Unacceptable	Deficiencies and/or comments
Are all changes from the protocol adequately described and addressed?	Acceptable	The changes to this report were updates to a modeling report that was reviewed and denied on 02/12/2021. Changes include: 1) Rochester Silver Lake sources were added back into the nearby source inventory for the 1-hr NO ₂ NAAQS demonstration and impacts are included in final concentration 2) Paved and unpaved haul road sources were included as volume sources in the modeling demonstration, and 3) The source impact analysis for 24-hr PM ₁₀ , 24-hr PM _{2.5} , and annual PM _{2.5} demonstrations was updated to include emissions from paved and unpaved haul road sources. The final modeling domain for these runs is now larger.

Are the model files consistent with the MPCA AQDM-02 spreadsheet accompanying the permit application?	Acceptable	No comments on this section	
Is the effective ambient air boundary described by the general public preclusion plan consistent with the ambient air boundary receptor locations?	Acceptable	No comments on this section	
Modeling demonstrates compliance with applicable NAAQS/MAAQS, SIL's, and PSD increments?	Acceptable	The modeling demonstrates compliance with all applicable NAAQS and MAAQS.	
<i>This section is:</i>	Acceptable	Date (mm/dd/yyyy):	09/23/2021

Section 3. Permit engineer results review

Has the 150-day completeness requirement been waived? No Yes

Technical review of final modeling report

Review items	Acceptable/ Unacceptable	Deficiencies and/or comments	
Are all emissions changes from the protocol adequately described and addressed?	Acceptable	No comments on this section.	
Are the emission calculations on the AQDM-02 spreadsheet consistent with permitted emissions?	Acceptable	Refer to the Recommended permit conditions or related items section.	
Are the emissions on the Nearby Sources Emission Calculations spreadsheet consistent with permitted emissions for those sources?	Acceptable	No comments on this section.	
If a general public preclusion plan is required (as noted on form AQDM-05), does the attached plan include a map that clearly displays the ambient air boundary and identifies how access is precluded for each section of the boundary?	Acceptable	No comments on this section.	
If a general public preclusion plan is required, are the boundary control strategies identified in the plan adequate?	Acceptable	No comments on this section	
<i>This section is:</i>	Acceptable	Date (mm/dd/yyyy):	09/24/2021

Recommended permit conditions or related items:	<p>Recommended Permit Conditions:</p> <p>FUGI 3/FUGI 13: vehicle traffic (denaturant and syrup truck), hours of operation (grain receiving and DDGS loadout) and process throughput limits (daily and/or annual grain receiving, DDGS, denaturant, denatured ethanol and corn oil).</p> <p>Verify site specific silt content for paved roads.</p> <p>EQUI 224 (volume source) PM10/PM2.5 emissions assume a capture efficiency of 0%, supporting the removal of the requirement to certify the hood for this permit action.</p> <p>Increase total facility process throughput limit from 133.237 to 143.486 million gallons per year 12-month rolling sum of denatured ethanol.</p> <p>EQUI 290 (proposed EQUI 254) PM10 and PM2.5.</p> <p>STRU 77 (proposed STRU 56) PM10 and PM2.5.</p> <p>STRU 78 (proposed STRU 57) PM10 and PM2.5.</p> <p>STRU 85 (proposed STRU 64) PM10 and PM2.5.</p> <p>STRU 43 PM10 and PM2.5.</p>		
---	--	--	--

Revise proposed PM10 and PM2.5 control efficiencies on TREA 37 (proposed TREA 33).

Control efficiencies on TREA 36, 38, and 39 (proposed TREA 32, 34, and 35).

Revisions to existing STRU 24 requirement; modeled PM10 at 3.560 (current Title I Condition) instead of 7.00 (current modeling limit) pounds per hour.

Move requirements (including modeled PM10 and PM2.5 limits) from EQUI 215 / EQUI 214 to STRU 45. Emission testing of PM10 and PM2.5 on STRU 45.

Revise PM2.5 modeling limit on EQUI 222 (STRU 48).

Revise PM10, PM2.5 and NOx on STRU 47.

STRU 52 PM10, PM2.5, and NOx.

STRU 41: emergency use only. Not modeled.

Related items

Note: The facility chose to overestimate PM10 and PM2.5 emissions at stacks: STRU 40, STRU 45, STRU 48, STRU 56, STRU 57, STRU 63, and STRU 64. The DDGS equipment venting to these stacks use emission factors for grain elevators (AP-42, Table 9.9.1-1) when emissions for grain processing facilities (AP-42, Table 9.9.1 2), specifically feed shipping (under animal feed mills) would be more appropriate.

EQUI 29/STRU 18 inactivated 10/5/2018 according to major amendment sent 9/27/2019.

EQUI 63/STRU 55 inactivated 10/5/2018 according to major amendment sent 9/27/2019.

Paved/unpaved road use specific to facility shutdown operation not modeled.

Section 4. Air risk assessor results review (If applicable)

Technical review of final modeling report

Review items	Acceptable/ Unacceptable/ Not applicable	Deficiencies and/or comments
Are all changes from the protocol phase adequately described and addressed in the AERA forms?	[Select from list]	No comments on this section
Do the submitted results reflect the methodology described in the AERA forms?	[Select from list]	No comments on this section
<i>This section is:</i>	Not applicable	Date (mm/dd/yyyy):
Are there any additional recommendations that will be submitted to the MPCA Air Managers?	No comments on this section	

Overall status of results

This modeling results are:	Approved
-----------------------------------	-----------------

Comments on approvable-status:

Acronyms

AERA	Air Emission Risk Analysis	MAAQS	Minnesota State Ambient Air Quality Standard
AERMAP	AERMOD Terrain Preprocessor	MPCA	Minnesota Pollution Control Agency
AERMOD	AMS/EPA Regulatory Model	NAAQS	National Ambient Air Quality Standard
AQ	Air Quality	O ₃	Ozone
AQDM	Air Quality Dispersion Modeling	PSD	Prevention of Significant Deterioration Program
AQDMRRF-01	Previous Results Review Form	SIL	Significant Impact Level
BPIP-PRIME	Building Profile Input Program for PRIME	UTM	Universal Transverse Mercator
GIS	Geographic Information System		

TECHNICAL MEMO



Date: 11/30/2022
Project: AlCorn 2022 General Engineering Services
KFI Project Number: 22-0034.00
Submitted by: Thomas Paitrick, P.E.

Subject: Dryer Feed Rates
Claremont, MN

Included herein are normal operating rates and proposed short term throughput limits for centrifuge and syrup feed rates for unit operations corresponding to STRU 24 and 47. The analysis was performed to characterize dryer process feed rates to establish a technical basis for the development of suitable short-term throughput limits for operations referenced in Al-Corn Clean Fuel's (Al-Corn) pending permit air permit publication.

KFI is an Engineering Services company with experience in the design and operation of corn-based fuel ethanol production facilities and has served in the role of design engineer at the Claremont, MN facility for more than 20 years. Most recently KFI provided engineering services for the most recent plant expansion and has analyzed the facility unit operations and advised AlCorn on operational rates and suggested maximums for short-term throughput limits.

Attached is a block flow diagram illustrating expected normal and recommended maximum syrup and centrifuge feed rates to Dryer A/B and Dryer C at a plant throughput of 140 MMGPY. Normal feed rates were developed utilizing an idealized design case materials balance developed around Al-Corn's upstream unit operation process conditions and typical equipment operation. Many factors can create conditions resulting in operations outside of the design case materials balance including operating variations due to planned and unplanned maintenance activities, operating condition changes resulting from normal operating and upset conditions associated with a bioprocess facility, and annual feedstock (seasonal corn crop changes) variability. Cumulatively, these variations in operating conditions were evaluated to determine proposed short-term throughput rate limits that would provide operational flexibility to the facility to manage typical operating and maintenance conditions at the dryers while maintaining total production capacity across the facility.

Bioprocess Variability – Al-Corn operates a continuous batch bioprocess facility. Bioprocesses like fermentation of corn starch, a seasonally varying feedstock, to ethanol will introduce process variability that requires downstream flexibility in equipment operations. The proposed short-term throughput limits anticipate that fermentation variability will consequently result in varying feed rates of whole stillage and syrup to the dryers requiring a maximum feed rate that is higher than the normal feed rate conditions. These variations may be transient due to inconsistencies of a single fermentation batch, or could extend to an entire seasonal variation of feedstock quality due to the crop year.

Operations and Maintenance Flexibility- The rotary drum dryers and corresponding emissions treatment devices are mechanical equipment with a significant number of rotating parts. The complexity and service of the equipment requires a rigorous preventative maintenance program to maintain consistent operations. Because of this, a whole stillage buffer tank and syrup buffer tanks are included in the plant design to allow the plant flexibility to continue operations with the remainder of the plant. These buffer tanks provide for feed flexibility to the process for regular

and unplanned maintenance activities. In the case of scheduled maintenance activities, the plant can transfer a portion of feed from one set of dryers to the other to minimize impacts of maintenance on other process equipment in the plant. As such, process feed rates may be maximized on an individual set of dryers while the other set of dryers is offline. Proposed maximum feed rate cases were designed anticipating these operations and maintenance activities.

Over a longer term, the throughput rate from the DDGs dryers will always migrate to the yield generated from each ground bushel of corn as syrup and/or stillage are not imported to the site. Dryer application rates as proposed below are limited by burner sizes on the respective dryers and the emission control devices installed on these dryers are engineered to the full burner rates.

Dryer AB

TO/HRS	STRU 24	5.39.22	Syrup feed rate <= 80 gpm (3 hour block avg)
TO/HRS	STRU 24	5.39.24	Centrifuge feed rate <= 800 gpm (3 hour block avg)

Dryer C

Distillation/Dryers/RTO	STRU 47	5.47.28	Syrup feed rate <= 125 gpm (3 hour block avg)
Distillation/Dryers/RTO	STRU 47	5.47.29	Centrifuge feed rate <= 1100 gpm (3 hour block avg)

140 MMGPY DRYER FEED RATES

WHOLE STILLAGE

1,345 GPM (NORMAL)

