Technical Support Document
For
Draft Air Emission Permit No. 04900005-101

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

1. General information

1.1 Applicant and stationary source location:

Table 1. Applicant and source address

Applicant/Address	**Stationary source/Address** (SIC Code: 4911 - Electric Services)
Xcel Energy 414 Nicollet Mall # 414-2 Minneapolis, Minnesota 55401-1927	Xcel Energy - Red Wing Generating Plant 801 East 5th St Red Wing, MN 55066-2760
Contact: Hannah Mathers Phone: 763-647-4338	

1.2 Facility description

Xcel Energy - Red Wing Generating Plant (Xcel - Red Wing, or Facility) is a waste combustor electric power generating facility located along the Mississippi River in Red Wing, Minnesota. The Facility is rated at 25 Megawatts (MW) and consists of two boilers that primarily burn Refuse Derived Fuel (RDF). The RDF burned at this facility is processed under contract with the City of Red Wing Resource & Recovery Facility and the Ramsey/Washington Resource Recovery Facility in Newport, MN.

Energy is produced through combustion of RDF in the two traveling grate boilers installed in 1947. The units are identified in the permit as EQUIs 1 and 2. The units each have a rated capacity of 198 MMBtu/hr, which equates to 18 tons of RDF per hour (at an assumed heat content of 5,500 Btu/lb). The waste combustors also burn wood and waste oil under the conditions of the permit, and natural gas which is used at start-up and if necessary to maintain proper combustion conditions.

Each boiler exhausts through separate pollution control equipment; dry lime injection for the control of acid gases and sulfur dioxide (SO_2), and a fabric filter for the control of particulate matter (PM), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). Exhaust gases from each boiler are continuously monitored for carbon monoxide (CO), sulfur dioxide SO_2, nitrogen oxides (NO_X), opacity, and oxygen (O_2). Operating parameters, including control equipment inlet temperature, lime feed rate, and steam flow rate, are also monitored continuously.

Hot water for internal use when EQUIs 1 and 2 are not in operation is provided by a natural gas-fired boiler. Ash produced in the course of waste combustion is stored in an enclosed area at the facility. The ash is transported using covered trucks to the Red Wing Ash Landfill. Other sources of PM emissions are the lime storage silos and RDF receiving building.

1.3 Description of the activities allowed by this permit action

This permit action is a major amendment initiated by the MPCA as a permit reopening under Minn. R. 7007.1600, subp. 1(D) to revise operating limits per an August, 2025 notice of compliance for EQUI 1 (Boiler 1), TREA 1 (Dry Limestone Injection), TREA 5 (Fabric Filter – High Temp), and TREA 2 (Dry Limestone Injection). This permit reopening is also to revise operating limits per a September 17, 2024 notice of compliance for EQUI 2 (Boiler 2), and TREA 6 (Fabric Filter – High Temp).

This permit action also incorporates an administrative amendment (IND20250001) for a 120-day test extension for EQUI 1 and EQUI 2 (Boiler 1 and Boiler 2) HCl testing requirements, each due 12 months after April 3, 2024. The due date for these tests has since passed, and the Permittee conducted the HCl tests for both EQUI 1 and EQUI 2 on April 30, 2025.

1.4 Description of notifications and applications included in this action

Table 2. Notifications and applications included in this action

Date received	Application/notification type and description
04/18/2025	Administrative Amendment (IND20250001)

1.5 Facility Emissions

This reopening does not change facility emissions or facility classifications. The table below shows the existing facility classifications.

Table 3. Facility classification

Classification	Major	Synthetic minor/area	Minor/area
PSD	X		
Part 70 Permit Program	X		
Part 63 NESHAP	X		

1.6 Changes to permit

The permit does not authorize any specific modifications, however, in addition to the changes discussed in section 1.3, the following changes are made through this permit action.

- Requirements at TREA 5, TREA 6, TREA 7, and TREA 8, and TFAC 2 have been updated due to administrative changes to standard language, replacing "shall" with "must."
- Due dates for all EQUI 1 and EQUI 2 testing have been updated based on the most recent testing. The MPCA updated performance testing requirements to explicitly list the due date of the next test, as allowed under Minn. R. 7007.1600, subp. 1(D). Previously, the due dates were listed as "no later than 12 months after" the date of the last test.
- The MPCA added permit language to EQUI 1 and EQUI 2 performance testing requirements specifying that performance testing must be conducted at worst-case conditions, and that testing conducted more than 60 days prior to the performance test due date resets the performance test due date for future tests, as allowed under Minn. R. 7007.1600, subp. 1(D)
- The MPCA removed reference to an incorrect 60-month testing frequency at EQUI 1 and EQUI 2 Opacity performance test requirements, as allowed under Minn. R. 7007.1600, subp. 1(C).
- The MPCA removed language related to maintaining a lime feed rate that had been incorrectly included within inlet temperature limit requirements at fabric filters TREA 5 and TREA 6, as allowed under Minn. R. 7007.1600, subp. 1(C).
- The MPCA clarified in the permit, as allowed under Minn. R. 7007.1600, subp. 1(C), that the temperature limits at TREA 5 and TREA 6 are a 4-hour block average basis, pursuant to Minn. R. 7011.1265, subp. 8.

2. Regulatory and/or statutory basis

2.1 New source review (NSR)

The facility is an existing major source under New Source Review regulations. No modifications are authorized by this permit.

2.2 Part 70 permit program

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

2.3 Regulatory Overview

Table 4. Regulatory overview of units affected by the permit amendment

Subject item*	Applicable regulations	Rationale
EQUI 1 – Boiler 1, EQUI 2 – Boiler 2	Minn. R. 7011.1201-1285	Standards for Stationary Sources, Waste Combustors.** Steam flow rate has been updated for both boilers based on the most recent performance tests in accordance with Minn. R. 7011.1240, subp. 5.
TREA 1 - Dry Limestone Injection	Minn. R. 7007.0800, subp. 2(A)	Permit Content. The permit includes operational requirements at TREA 1 to ensure compliance with the EQUI 1 HCl limit . The lime injection rate has been updated based on the most recent performance test to ensure compliance with the EQUI 1 HCl limit.
TREA 2 - Dry Limestone Injection	Minn. R. 7007.0800, subp. 2(A)	Permit Content. The permit includes operational requirements at TREA 2 to ensure compliance with the EQUI 2 HCl limit . The lime injection rate has been updated based on the most recent performance test to ensure compliance with the EQUI 2 HCl limit.
TREA 5 – Fabric Filter TREA 6 – Fabric Filter	Minn. R. 7011.1201-1285	Standards for Stationary Sources, Waste Combustors.** The inlet gas stream temperature limit to TREA 5 and TREA 6 has been updated based on the most recent performance tests in accordance with Minn. R. 7011.1240, subp. 2

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

**The language 'This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act' refers to permit requirements that are established only under state law and are not established under or required by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required only under state law. State law-only requirements are not enforceable by the EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical information

3.1 Monitoring

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

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

- The likelihood of the facility violating the applicable requirements.
- Whether add-on controls are necessary to meet the emission limits.
- The variability of emissions over time.
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit.

- The technical and economic feasibility of possible periodic monitoring methods.
- The kind of monitoring found on similar units elsewhere.

The table below summarizes the monitoring requirements associated with this amendment.

Table 5. Monitoring

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 1 – Boiler 1	Steam Flow <= 124,299 pounds per hour on a four-hour block average. [Minn. R. 7011.1240, subp. 5]	Continuous monitoring; Performance testing	Monitoring required by the Minnesota Standards of Performance for Waste Combustors is adequate to demonstrate compliance with the standards.
EQUI 2 – Boiler 2	Steam Flow <= 119,765 pounds per hour on a four-hour block average. [Minn. R. 7011.1240, subp. 5]		
TREA 1 – Dry Limestone Injection	Lime feed rate >= 15.0%, 8-hour block average. [Minn. R. 7007.0800, subp. 2(A)]	Continuous monitoring; Performance testing	Continuous monitoring of the lime feed rate is adequate to demonstrate compliance with the lime feed rate limit.
TREA 2 – Dry Limestone Injection	Lime feed rate >= 14.9%, 8-hour block average. [Minn. R. 7007.0800, subp. 2(A)]		
TREA 5 – Fabric Filter	Inlet Temperature <= 310° F on a four-hour arithmetic mean. [Minn. R. 7011.1240, subp. 2]	Continuous monitoring; Performance testing	Monitoring required by the Minnesota Standards of Performance for Waste Combustors is adequate to demonstrate compliance with the standards.
TREA 6 – Fabric Filter	Inlet Temperature <= 310° F on a four-hour arithmetic mean. [Minn. R. 7011.1240, subp. 2]		

3.2 Permit Organization

This permit meets the MPCA Tempo Guidance for ordering and grouping of requirements as well as the use of permit appendices**.**

3.3 Comments received

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

This section will be updated upon completion of the relevant review periods.

4. Permit fee assessment

The permit action includes one permit application that was received after the effective date of the rule (July 1, 2009). There are no additional points fees associated with this permit action.

5. Conclusion

Based on the information provided by Xcel Energy - Red Wing Generating Plant the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 04900005-101 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff members on permit team: Derek Nelson (permit engineer)
Sarah Sevcik (peer reviewer)

Kayla Park (enforcement)
Rebecca Settle (performance testing)
Beckie Olson (permit writing assistant)
Laurie O'Brien (administrative support)

Tempo Activities: Administrative Amendment (IND20250001), Reopening (IND20250002)

Attachments:
1. Notices of Compliance
2. Subject item inventory and requirements report

Attachment 1 – Notices of Compliance

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

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September 17, 2024

Sent Via Email

David Maiers
Xcel Energy - Red Wing Generating Plant
414 Nicollet Mall # GO2
Minneapolis, MN 55401-1927

RE: Notice of Compliance for the June 18, 2024 through June 27, 2024 Cadmium compounds, Front-half Particulate Matter, Hydrochloric acid, Lead, Mercury, Muni Waste Combust Organics, Opacity, Particulate Matter Performance Test of the Waste Combustors Pursuant to Air Emission Permit Number 04900005-003

Dear David Maiers:

The Minnesota Pollution Control Agency (MPCA) performance test staff reviewed the final test report for the performance test conducted at Xcel Energy - Red Wing Generating Plant located in Red Wing, Minnesota. The test report was submitted September 10, 2024.

Summary of performance test results

Emission unit tested	Limitation basis Pollutant and emission limit	Test result	Compliance status
Boiler 1 EQUI 1	Front-half Particulate Matter (FHPM): ≤ 0.012 grains/dry standard cubic foot gr/dscf, front-half. [Minn. R. 7011.1225, subp. 1, Minn. R. 7011.1227, Table 1]	FHPM: 0.0014 gr/dscf	Compliant
	Particulate Matter (PM): ≤ 0.020 gr/dscf, total. [Minn. R. 7011.1227, Table 1, Minn. R. 7011.1225, subp. 1]	PM: 0.0007 gr/dscf	Compliant
	PM: ≤ 0.6 lbs/million Btu heat (lb/mmBtu) input [Minn. R. 7011.0510, subp. 1]	PM: 0.0014 lbs/mmBtu	Compliant
	Hydrochloric acid (HCl): ≤ 29 parts per million (ppm); or 95% control, whichever is less stringent. [Minn. R. 7011.1227, Table 1]	HCl: 4.07 ppm	Compliant
	Cadmium compounds (Cd): ≤ 40 micrograms/dscm (µg/dscm) measured as cadmium. [Minn. R. 7011.1227, Table 1]	Cd: 0.18 µg/dscm	Compliant
	Mercury (Hg): ≤ 30 micrograms/dscm; or 85% removal (long-term), whichever is less stringent. [Minn. R. 7011.1227, Table 1]	Hg: 0.94 µg/dscm	Compliant
	Lead: ≤ 440 micrograms/DSCM. [Minn. R. 7011.1227, Table 1]	Lead: 0.94 µg/dscm	Compliant
	Opacity: less than or equal to 10 percent opacity [Minn. R. 7011.1227, Table 1]	Opacity: 0%	Compliant

Emission unit tested	Limitation basis Pollutant and emission limit	Test result	Compliance status
Boiler 2 EQUI 2	FHPM: ≤ 0.012 gr/dscf, front-half. [Minn. R. 7011.1225, subp. 1, Minn. R. 7011.1227, Table 1]	FHPM: 0.0014 gr/dscf	Compliant
	PM: ≤ 0.020 gr/dscf, total. [Minn. R. 7011.1227, Table 1, Minn. R. 7011.1225, subp. 1]	PM: 0.0017 gr/dscf	Compliant
	PM: ≤ 0.6 lb/mmBtu heat input [Minn. R. 7011.0510, subp. 1]	PM: 0.0037 lbs/mmBtu	Compliant
	HCl: ≤ 29 parts per million (ppm); or 95% control, whichever is less stringent. [Minn. R. 7011.1227, Table 1]	HCl: 5.21 ppm	Compliant
	Cadmium compounds (Cd): ≤ 40 micrograms/dscm (µg/dscm) measured as cadmium. [Minn. R. 7011.1227, Table 1]	Cd: 0.74 µg/dscm	Compliant
	Hg: ≤ 30 micrograms/dscm; or 85% removal (long-term), whichever is less stringent. [Minn. R. 7011.1227, Table 1]	Hg: 0.74 µg/dscm	Compliant
	Lead: ≤ 440 micrograms/DSCM. [Minn. R. 7011.1227, Table 1]	Lead: 8.36 µg/dscm	Compliant
	Muni Waste Combust Organics (Dioxins): ≤ 30 ng/dscm measured as Total PCDD/PCDF. [Minn. R. 7011.1227, Table 1]	Dioxins: 0.026 ng/dscm	Compliant
	Opacity: less than or equal to 10 percent opacity [Minn. R. 7011.1227, Table 1]	Opacity: 0%	Compliant

The Dioxin testing was conducted on EQUI 2 while combusting municipal waste and operating with an average steam load of 108,602 pounds per hour and with the fabric filter operating at an average inlet temperature of 280 degrees Fahrenheit. Testing for HCl was performed at a lime feed rate of 14.9%. These parameters are within the ranges defined in the approved test plan.

In addition, please be advised of the following:

1. The following operating limit applies pursuant to Minn. R. 7017.2025, subp. This limit supersedes any previous operating limit in the permit and does not serve to relax any other limit or requirement. This letter grants preliminary instruction to operate at the new rate. The limit is final upon issuance of a permit amendment incorporating the change.

Emission Unit	Operating Limit	Averaging Method
EQUI 2	**Steam Flow:** 119,765 lbs/hour	Four-hour block average: Based on Steam flow recorded during dioxin/furan testing
EQUI 2	**Particulate Control Inlet Temperature:** ≤ 310 degrees Fahrenheit based on highest four hour mean temperature as measured during Dioxin test plus 30 degrees.	Four-Hour Block Average: Four-hour block average is calculated from four consecutive one-hour averages.
EQUI2/ TREA2	**Lime Feed Additive:** Lime feeder speed of 14.9% based on additive feed rate during the Hydrochloric Acid test.	Eight-Hour Block Average: Divide total weight by total operating time in each eight-hour block. Down time of 15 or more minutes is not to be included as operating time.

Emission Unit	Operating Limit	Averaging Method
EQUI1/ TREA1	**Lime Feed Additive:** Lime feeder speed of 14.9% based on additive feed rate during the Hydrochloric Acid test.	Eight-Hour Block Average: Divide total weight by total operating time in each eight-hour block. Down time of 15 or more minutes is not to be included as operating time.

The Regulated Party may not operate an emission unit at a less stringent rate than that listed in the table above unless it conducts a performance test at an alternate rate, MPCA performance test staff determines compliance at that rate for the emission unit, and a Notice of Compliance with approval to operate at the new rate is received.

Ongoing compliance with the operating limit will be determined using the same data acquisition and reduction as was used during the performance test. If an operating limit is exceeded, it must be reported in accordance with the deviation reporting requirements of Minn. R. 7007.0800, subp. 6(A).

2. The Emission Inventory rule, Minn. R. 7019.3000 to 7019.3100, requires the calculation of emissions based on an established hierarchy. In the absence of Continuous Emission Monitor data meeting the requirements of Minn. R. 7019.3040, a performance test must be used. When a performance test for particulate matter, carbon monoxide, nitrogen oxides, sulfur oxides, volatile organic compounds or lead is conducted and meets the requirements of Minn. R. 7017.2001 to 7017.2060, the results must be used to calculate emissions, unless specified otherwise by Minn. R. 7019.3000 to 7019.3100. It is the Regulated Party's responsibility to ensure the results of performance tests are accounted for in their annual emission inventory submittal. Note that the final decision to approve the emission factor for any given inventory year will be made by the MPCA Emission Inventory Coordinator.

If you have questions or comments regarding the content of this letter, please contact me at 651-757-2700.

Sincerely,

Ross Provow

This document has been electronically signed.
Ross Provow
Environmental Specialist
Industrial Division

RP:rc

Activity ID REP20240004 @ 1888

MINNESOTA POLLUTION CONTROL AGENCY

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August 21, 2025

Sent via email

Kelsey Suddard, Environmental Analyst V
Xcel Energy - Red Wing Generating Plant
414 Nicollet Mall # GO2
Minneapolis, MN 55401-1927

RE: Notice of Compliance and Verification of Test Results for the April 22-30, 2025, Particulate Matter, Front-half Particulate Matter, Hydrogen Chloride, Lead, Cadmium, Mercury, Muni Waste Combust Organics, Opacity Performance Test of the Boiler 1 (EQUI 1), Boiler 2 (EQUI 2) Pursuant to Air Emission Permit Number 04900005-004

Dear Kelsey Suddard:

The Minnesota Pollution Control Agency (MPCA) performance test staff reviewed the final test report for the performance test conducted at Xcel Energy - Red Wing Generating Plant located in Red Wing, Minnesota. The test report was submitted June 27, 2025.

Summary of performance test results

Emission unit tested	Limitation basis Pollutant and emission limit	Test result	Compliance status
Boiler 1 EQUI 1	Front-Half Particulate Matter (FHPM): ≤ 0.011 grains per dry standard cubic foot (gr/dscf). [Minn. R. 7011.1227]	FHPM: 0.0007 gr/dscf	Compliant
	PM: ≤ 0.020 gr/dscf. [Minn. R. 7011.1227]	PM: 0.0012 gr/dscf	Compliant
	PM: ≤ 25 milligrams per dscm (mg/dscm), corrected to 7% O_2. [Minn. R. 7007.0800, subp. 2(A)]	PM: 0.062 mg/dscm	Compliant
	PM: no applicable permit limit.	PM: 0.0026 lb/MMBtu	Verified
	Opacity (VE): ≤ 10%. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp.4(F)]	VE: 0%	Compliant
	Lead ≤ 400 microgram per dry std cubic meter (µg/dscm). [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]	Pb: 7.76 µg/dscm	Compliant
	Muni Waste Combust Organics (D/F): ≤ 30 nanogram per dry std cubic meter (ng/dscm), measured as total PCDD/PCDF. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(B)]	D/F: 0.022 ng/dscm	Compliant
	Cadmium (Cd): ≤ 35 µg/dscm. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]	Cd: 0.44 µg/dscm	Compliant
	Hydrogen Chloride (HCl): ≤ 29 parts per million (ppm) or 95% control, whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(A)]	HCl: 9.78 ppm	Compliant
		HCl: 97.83% control	Compliant

Emission unit tested	Limitation basis Pollutant and emission limit	Test result	Compliance status
Boiler 1 EQUI 1	Mercury (Hg): ≤ 30 µg/dscm or 85% removal (long-term), whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]	Hg: 1.05 µg/dscm	Compliant
	Hg: ≤ 50 µg/dscm or 85% removal (short term), whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]		Compliant
	Steam Flow: ≤ 122,719 pounds per hour (lb/hr) on a four hour block average. [Minn. R. 7011.1240, subp. 5]	Steam Flow: 112,823 lb/hr	Verified
Dry Limestone Injection TREA 1	Lime Feed Rate: ≥ 14.9%, 8-hour block average (as determined during the June 18-27,2024 HCl performance test). [Minn. R. 7007.0800, subp. 2(A)]	Lime Feed Rate: 18.8%	Verified
Fabric Filter - High Temperature, i.e., T>250°F TREA 5	Inlet Gas Stream Temperature: ≤ 312°F (as determined during the April 5-6, 2023, D/F performance test). [Minn. R. 7011.1240, subp. 2]	Temperature: 280°F	Verified
	Pressure Drop (dP): ≥ 2.0 and ≤ 15.5 in. H_2O. [Minn. R. 7007.0800, subp. 2(A)]	dP: 6.53 in. H_2O	Compliant
Boiler 2 EQUI 2	FHPM: ≤ 0.011 gr/dscf. [Minn. R. 7011.1227]	FHPM: 0.0004 gr/dscf	Compliant
	PM: ≤ 0.020 gr/dscf. [Minn. R. 7011.1227]	PM: 0.001 gr/dscf	Compliant
	PM: ≤ 25 mg/dscm, corrected to 7% O_2. [Minn. R. 7007.0800, subp. 2(A)]	PM: 0.0448 mg/dscm	Compliant
	PM: no applicable permit limit.	PM: 0.0021 lb/MMBtu	Verified
	VE: ≤ 10%. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp.4(F)]	VE: 0%	Compliant
	Pb: ≤ 400 µg/dscm. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]	Pb: 1.47 µg/dscm	Compliant
	Cd: ≤ 35 µg/dscm. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]	Cd: 0.16 µg/dscm	Compliant
	HCl: ≤ 29 ppm or 95% control, whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(A)]	HCl: 12.02 ppm	Compliant
		HCl: 97.9% control	Compliant
	Hg: ≤ 30 µg/dscm or 85% removal (long-term), whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]	Hg: 23.73 µg/dscm	Compliant
	Hg: ≤ 50 µg/dscm or 85% removal (short term), whichever is less stringent. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]		Compliant
Dry Limestone Injection TREA 2	Lime Feed Rate: ≥ 14.9%, 8-hour block average (as determined during the June 18-27, 2024, HCl performance test). [Minn. R. 7007.0800, subp. 2(A)]	Lime Feed Rate: 16.4%	Verified
Fabric Filter - High Temperature, i.e., T>250°F TREA 6	dP: ≥ 2.0 and ≤ 15.5 in. H_2O. [Minn. R. 7007.0800, subp. 2(A)]	dP: 6.46 in. H_2O	Compliant

Emission unit operating rate

Emission unit tested	Pollutant(s) Tested	Operating rate	Operating rate units
Boiler 1 – EQUI 1	FHPM, PM	112,418.7	pounds per hour
	Pb, Cd, Hg	112,430.3	pounds per hour
	VE	112,185.0	pounds per hour
	HCl	109,430.0	pounds per hour
Boiler 2 – EQUI 2	FHPM, PM	97,096.7	pounds per hour
	Pb, Cd, Hg	97,142.0	pounds per hour
	VE	96,259.0	pounds per hour
	HCl	94,553.0	pounds per hour

These parameters are within the ranges defined in the approved test plan. Operating limits based on these conditions are defined in Item 1 of this letter.

In addition, please be advised of the following:

1. The following operating limit applies pursuant to Minn. R. 7017.2025, subp. 3. This limit supersedes any previous operating limit in the permit and does not serve to relax any other limit or requirement. This letter grants preliminary instruction to operate at the new rate. The limit is final upon issuance of a permit amendment incorporating the change.

Emission unit	Operating limit and averaging method
Boiler 1 EQUI 1	Steam Flow: ≤ 124,299 lb/hr with a 4-hour block average based on a 10% increase over the highest average unit load achieved during the D/F test
Dry Limestone Injection TREA 1	Lime Feed Rate: ≥ 15.0% with an 8-hour block average based on the lowest 1-minute lime feed rate during the HCl test
Fabric Filter - High Temperature, i.e., T>250°F TREA 5	Inlet Gas Stream Temperature: ≤ 310°F with a 4-hour block average based on a 30°F increase over the highest average temperature recorded during the D/F test
Dry Limestone Injection TREA 2	Lime Feed Rate: ≥ 14.9% with an 8-hour block average based on the lowest 1-minute lime feed rate during the HCl test

The Regulated Party may not operate an emission unit at a less stringent rate than that listed in the table above unless it conducts a performance test at an alternate rate, MPCA performance test staff determines compliance at that rate for the emission unit, and a Notice of Compliance with approval to operate at the new rate is received.

Ongoing compliance with the operating limit will be determined using the same data acquisition and reduction as was used during the performance test. If an operating limit is exceeded, it must be reported in accordance with the deviation reporting requirements of Minn. R. 7007.0800, subp. 6(A).

2. The Emission Inventory rule, Minn. R. 7019.3000 to 7019.3100, requires the calculation of emissions based on an established hierarchy. In the absence of Continuous Emission Monitor data meeting the requirements of Minn. R. 7019.3040, a performance test must be used. When a performance test for particulate matter, carbon monoxide, nitrogen oxides, sulfur oxides, volatile organic compounds or lead is conducted and meets the requirements of Minn. R. 7017.2001 to 7017.2060, the results must be used to calculate emissions, unless specified otherwise by Minn. R. 7019.3000 to 7019.3100. It is the Regulated Party's responsibility to ensure the results of performance tests are accounted for in their annual emission inventory submittal. Note that the final decision to approve the emission factor for any given inventory year will be made by the MPCA Emission Inventory Coordinator.

If you have questions or comments regarding the content of this letter, please contact me at 651-757-2582 or Rebecca.Settle@state.mn.us.

Sincerely,

Rebecca D. Settle

This document has been electronically signed.
Rebecca D. Settle
Environmental Specialist
Industrial Division

RDS:rc

cc: Andy Place, MPCA
Ross Provow, MPCA
Activity ID REP20250004 @ 1888

Attachment 2 – Subject item inventory and facility requirements

SI List

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Activity	Insignificant Air Emissions Activity	ACTV 2	Null	All IA's	
Agency Interest	Conventional Site	AISI 1888	Null	Null	
Component Group	Air Component Group	COMG 1	GP001	Waste Combustors and Control Equipment	
		COMG 2	Null	Continuous Emission Monitors	
		COMG 3	Null	Continuous Opacity Monitors	
Equipment	Boiler	EQUI 1	EU001	Boiler 1	
		EQUI 2	EU002	Boiler 2	
		EQUI 39	Null	Auxiliary Boiler	
	Continuous Emission Monitor	EQUI 21	MR005	SO2 (EQUI 1 scrubber inlet)	
		EQUI 22	MR006	O2 (EQUI 1 scrubber inlet)	
		EQUI 27	MR012	SO2 (EQUI 2 scrubber inlet)	
		EQUI 28	MR013	O2 (EQUI 2 scrubber inlet)	
		EQUI 41	Null	CO (EQUI 1 stack)	
		EQUI 42	Null	NOx (EQUI 1 stack)	
		EQUI 43	Null	SO2 (EQUI 1 stack)	
		EQUI 44	Null	O2 (EQUI 1 stack)	
		EQUI 45	Null	CO (EQU 2 stack)	
		EQUI 46	Null	NOx (EQUI 2 stack)	
		EQUI 47	Null	SO2 (EQUI 2 stack)	
		EQUI 48	Null	O2 (EQUI 2 stack)	
	Continuous Opacity Monitor	EQUI 29	MR014	Opacity (EQUI 2 stack)	
		EQUI 49	Null	Opacity (EQUI 1 stack)	
	Conveyor	EQUI 40	Null	Ash Conveyor	
	Data Acquisition System	EQUI 8	DA001	U1/U2 Server	
	Parametric Monitor	EQUI 30	MR015	Temperature (bag house inlet) (EQUI 1)	
		EQUI 31	MR016	Steam Flow (EQUI 1)	
		EQUI 32	MR017	Temperature (bag house inlet) (EQUI 2)	
		EQUI 33	MR018	Steam Flow (EQUI 2)	
	Silo/Bin	EQUI 36	EU005	Lime Storage Silo	
		EQUI 37	EU006	Lime Storage Silo	
Structure	Building	STRU 1	BG001	Power House	
		STRU 2	BG002	RDF Receiving	
		STRU 3	BG003	Ash House	
		STRU 4	BG004	RDF Scalping	
		STRU 7	BG007	Hydraulic Storage Area	
		STRU 15	Null	Oil Storage Building	
		STRU 16	Null	Sub Station House	
		STRU 17	Null	Ash Conveyor Building	
		STRU 18	Null	Air Compressor/Scrubber Air Blower Building	
		STRU 19	Null	Lunch Room Building	
		STRU 20	Null	RDF Storage Building	
		STRU 21	Null	Storage Shed No. 3	
		STRU 22	Null	Screen House	
		STRU 23	Null	Warehouse	
		STRU 24	Null	Construction Trailer No. 2	
	Stack/Vent	STRU 8	SV002	Boiler 2	
		STRU 11	SV001	Boiler 1	
		STRU 12	SV005	Lime Silo Vent	
		STRU 13	SV006	Lime SIlo Vent	
		STRU 14	Null	Auxiliary Boiler Stack	
Total Facility	Air Quality Total Facility	TFAC 2	04900005	Xcel Energy - Red Wing Generating Plant	
Treatment	016-Fabric Filter - High Temp, T>250 Degrees F	TREA 5	CE005	Fabric Filter - High Temperature, i.e., T>250 Degrees F	
		TREA 6	CE006	Fabric Filter - High Temperature, i.e., T>250 Degrees F	
	018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 7	CE009	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	
		TREA 8	CE010	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	
	041-Dry Limestone Injection	TREA 1	CE007	Dry Limestone Injection	
		TREA 2	CE008	Dry Limestone Injection	

Insignificant Activities

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

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

Emission Units 1

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Firing Method	Subject to CSAPR?	Electric Generating Capacity (MW)	Construction Start Date	Operation Start Date	Modification Date	
Boiler	EQUI 1	EU001	Boiler 1	Foster Wheeler	NA	125,000	pounds/hours	Steam	Overfeed stoker (traveling grate)	N	Null	1/1/1947	1/1/1949	Null	
	EQUI 2	EU002	Boiler 2	Foster Wheeler	NA	125,000	pounds/hours	Steam	Overfeed stoker (traveling grate)	N	Null	1/1/1947	1/1/1949	Null	
	EQUI 39	Null	Auxiliary Boiler	Johnston Boiler Co.	298 series package boiler	4.19	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1972	1/1/1985	Null	

Emission Units 3

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Conveyor	EQUI 40	Null	Ash Conveyor	Custom	Custom	41	tons/hours	Ash	1/1/1987	1/1/1987	Null	
Silo/Bin	EQUI 36	EU005	Lime Storage Silo	Custom	Custom	27.6	tons/hours	Lime	6/30/2000	6/30/2000	Null	
	EQUI 37	EU006	Lime Storage Silo	Custom	Custom	27.6	tons/hours	Lime	11/1/1999	12/1/1999	Null	

Component Groups

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 1	GP001	Waste Combustors and Control Equipment	EQUI 1	
			EQUI 2	
			TREA 1	
			TREA 2	
			TREA 5	
			TREA 6	
COMG 2	Null	Continuous Emission Monitors	EQUI 21	
			EQUI 22	
			EQUI 27	
			EQUI 28	
			EQUI 41	
			EQUI 42	
			EQUI 43	
			EQUI 44	
			EQUI 45	
			EQUI 46	
			EQUI 47	
			EQUI 48	
COMG 3	Null	Continuous Opacity Monitors	EQUI 29	
			EQUI 49	

PTE by SI

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Boiler	EQUI 1	EU001	Boiler 1	2,4-Dinitrophenol	3.37e-05	0.000103	0.000103	
					2,4,6-Trichlorophenol	2.06e-06	6.3e-06	6.3e-06	
					4-Nitrophenol	2.06e-05	6.3e-05	6.3e-05	
					Acetaldehyde	0.155	0.476	0.476	
					Acetophenone	5.99e-07	1.834e-06	1.834e-06	
					Acrolein	0.749	2.293	2.293	
					Antimony compounds	0.001463	0.00483	0.00483	
					Arsenic compounds	0.0196	0.468	0.0608	
					Benzene	0.786	2.41	2.41	
					Beryllium	0.000204	0.000647	0.000647	
					Bis(2-ethylhexyl) phthalate	8.8e-06	2.694e-05	2.694e-05	
					Cadmium compounds	0.00621	0.69	0.0272	
					Carbon Dioxide Equivalent	40,487	177,335.2	177,335.2	
					Carbon Monoxide	41.4	389.4	181.3	
					Carbon tetrachloride	0.00842	0.0258	0.0258	
					Chlorine	0.148	0.453	0.453	
					Chlorobenzene (Monochlorobenzene)	0.00618	0.0189	0.0189	
					Chloroform	0.00524	0.016	0.016	
					Chromium compounds	0.00413	1.1	0.0181	
					Cobalt compounds	0.001203	0.00389	0.00389	
					Ethylbenzene	0.0058	0.01777	0.01777	
					Formaldehyde	0.824	2.522	2.522	
					HAPs - Total	6.4	568.59	28.05	
					Hydrogen Chloride	6.27	549.51	27.48	
					Lead	0.0987	15.846	0.397	
					Manganese compounds	0.296	0.92	0.92	
					Mercury	0.00532	0.434	0.0233	
					Naphthalene	0.0182	0.0556	0.0556	
					Nickel compounds	0.00611	0.344	0.0204	
					Nitrogen Oxides	85.1	395.8	372.5	
					Particulate Matter	8.11	5,487.3	35.54	
					Pentachlorophenol (PCP)	9.55e-06	2.923e-05	2.923e-05	
					Phenol	0.00955	0.02923	0.02923	
					Phosphorus	0.0399	0.175	0.175	
					PM < 2.5 micron	8.11	5,487.3	35.54	
					PM < 10 micron	8.11	5,487.3	35.54	
					Polycyclic organic matter	0.00523	0.016	0.016	
					Propionaldehyde	0.0114	0.03496	0.03496	
					Selenium compounds	0.000518	0.00169	0.00169	
					Styrene	0.356	1.09	1.09	
					Sulfur Dioxide	13.7	307.5	59.9	
					Toluene	0.172	0.527	0.527	
					Total PCDD/PCDF	5.32e-06	0.000747	2.33e-05	
					Vinyl chloride (chloroethene)	0.00337	0.0103	0.0103	
					Volatile Organic Compounds	3.17	12.12	12.12	
					Xylene (o-)	0.00468	0.01433	0.01433	
		EQUI 2	EU002	Boiler 2	2,4-Dinitrophenol	3.37e-05	0.000103	0.000103	
					2,4,6-Trichlorophenol	2.06e-06	6.3e-06	6.3e-06	
					4-Nitrophenol	2.06e-05	6.3e-05	6.3e-05	
					Acetaldehyde	0.155	0.476	0.476	
					Acetophenone	5.99e-07	1.834e-06	1.834e-06	
					Acrolein	0.749	2.293	2.293	
					Antimony compounds	0.001463	0.004774	0.004774	
					Arsenic compounds	0.0196	0.468	0.0608	
					Benzene	0.786	2.41	2.41	
					Beryllium	0.000203	0.000646	0.000646	
					Bis(2-ethylhexyl) phthalate	8.8e-06	2.694e-05	2.694e-05	
					Cadmium compounds	0.00621	0.69	0.0272	
					Carbon Dioxide Equivalent	40,487	177,335.2	177,335.2	
					Carbon Monoxide	41.4	389.4	181.3	
					Carbon tetrachloride	0.00842	0.0258	0.0258	
					Chlorine	0.148	0.453	0.453	
					Chlorobenzene (Monochlorobenzene)	0.00618	0.0189	0.0189	
					Chloroform	0.00524	0.016	0.016	
					Chromium compounds	0.00413	1.1	0.0181	
					Cobalt compounds	0.001203	0.00389	0.00389	
					Ethylbenzene	0.0058	0.01777	0.01777	
					Formaldehyde	0.824	2.522	2.522	
					HAPs - Total	6.43	568.7	28.05	
					Hydrogen Chloride	6.27	549.51	27.48	

PTE by SI

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Boiler	EQUI 2	EU002	Boiler 2	Lead	0.0987	15.85	0.397	
					Manganese compounds	0.296	0.923	0.923	
					Mercury	0.00532	0.434	0.0233	
					Naphthalene	0.0182	0.0556	0.0556	
					Nickel compounds	0.00611	0.344	0.0204	
					Nitrogen Oxides	85.1	395.8	372.5	
					Particulate Matter	8.11	5,487.3	35.54	
					Pentachlorophenol (PCP)	9.55e-06	2.923e-05	2.923e-05	
					Phenol	0.00955	0.02923	0.02923	
					Phosphorus	0.0666	0.292	0.292	
					PM < 2.5 micron	8.11	5,487.3	35.54	
					PM < 10 micron	8.11	5,487.3	35.54	
					Polycyclic organic matter	0.00523	0.016	0.016	
					Propionaldehyde	0.0114	0.03496	0.03496	
					Selenium compounds	0.000519	0.001756	0.001756	
					Styrene	0.356	1.09	1.09	
					Sulfur Dioxide	13.7	307.5	59.9	
					Toluene	0.172	0.527	0.527	
					Total PCDD/PCDF	5.32e-06	0.000747	2.33e-05	
					Vinyl chloride (chloroethene)	0.00337	0.0103	0.0103	
					Volatile Organic Compounds	3.17	12.1	12.1	
					Xylene (o-)	0.00468	0.01433	0.01433	
		EQUI 39	Null	Auxiliary Boiler	1,4-Dichlorobenzene (para-)	4.92e-06	2.16e-05	2.16e-05	
					Arsenic compounds	8.21e-07	3.59e-06	3.59e-06	
					Benzene	8.62e-06	3.77e-05	3.77e-05	
					Beryllium	4.92e-08	2.16e-07	2.16e-07	
					Cadmium compounds	5.74e-06	1.98e-05	1.98e-05	
					Carbon Dioxide Equivalent	490	2,146	2,146	
					Carbon Monoxide	0.34	1.51	1.51	
					Chromium compounds	5.74e-06	2.52e-05	2.52e-05	
					Cobalt compounds	3.45e-07	1.51e-06	1.51e-06	
					Formaldehyde	0.000308	0.00135	0.00135	
					HAPs - Total	0.01	0.03	0.03	
					Hexane	0.00739	0.0323	0.0323	
					Lead	2.05e-06	8.99e-06	8.99e-06	
					Manganese compounds	1.56e-06	6.83e-06	6.83e-06	
					Mercury	1.07e-06	4.67e-06	4.67e-06	
					Naphthalene	2.5e-06	1.1e-05	1.1e-05	
					Nickel compounds	8.62e-06	3.77e-05	3.77e-05	
					Nitrogen Oxides	0.41	1.8	1.8	
					Particulate Matter	0.03	0.14	0.14	
					PM < 2.5 micron	0.03	0.14	0.14	
					PM < 10 micron	0.03	0.14	0.14	
					Polycyclic organic matter	3.62e-07	1.59e-06	1.59e-06	
					Selenium compounds	9.85e-08	4.31e-07	4.31e-07	
					Sulfur Dioxide	0.002	0.01	0.01	
					Toluene	1.4e-05	6.11e-05	6.11e-05	
					Volatile Organic Compounds	0.02	0.1	0.1	
	Silo/Bin	EQUI 36	EU005	Lime Storage Silo	Particulate Matter	0.17	73.74	0.74	
					PM < 2.5 micron	0.17	73.74	0.74	
					PM < 10 micron	0.17	73.74	0.74	
		EQUI 37	EU006	Lime Storage Silo	Particulate Matter	0.17	73.74	0.74	
					PM < 2.5 micron	0.17	73.74	0.74	
					PM < 10 micron	0.17	73.74	0.74	

Relationships

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
Equipment	Boiler	EQUI 1	EU001	Boiler 1	is controlled by	TREA 1	100	041-Dry Limestone Injection	CE007	12/5/2002	Null	
						TREA 5	100	016-Fabric Filter - High Temp, T>250 Degrees F	CE005	1/1/1987	Null	
					is monitored by	EQUI 21	Null	Continuous Emission Monitor	MR005	3/1/2000	Null	
						EQUI 22	Null	Continuous Emission Monitor	MR006	3/1/2000	Null	
						EQUI 30	Null	Parametric Monitor	MR015	10/1/1998	Null	
						EQUI 31	Null	Parametric Monitor	MR016	6/1/1987	Null	
						EQUI 41	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 42	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 43	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 44	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 49	Null	Continuous Opacity Monitor	Null	6/1/1999	Null	
					sends to	EQUI 8	Null	Data Acquisition System	DA001	6/1/1987	Null	
						STRU 11	100	Stack/Vent	SV001	9/29/2000	Null	
		EQUI 2	EU002	Boiler 2	is controlled by	TREA 2	100	041-Dry Limestone Injection	CE008	12/5/2002	Null	
						TREA 6	100	016-Fabric Filter - High Temp, T>250 Degrees F	CE006	1/1/1987	Null	
					is monitored by	EQUI 27	Null	Continuous Emission Monitor	MR012	3/1/2000	Null	
						EQUI 28	Null	Continuous Emission Monitor	MR013	3/1/2000	Null	
						EQUI 29	Null	Continuous Opacity Monitor	MR014	6/1/1987	Null	
						EQUI 32	Null	Parametric Monitor	MR017	10/1/1998	Null	
						EQUI 33	Null	Parametric Monitor	MR018	6/1/1987	Null	
						EQUI 45	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 46	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 47	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
						EQUI 48	Null	Continuous Emission Monitor	Null	10/27/2023	Null	
					sends to	EQUI 8	Null	Data Acquisition System	DA001	6/1/1987	Null	
						STRU 8	100	Stack/Vent	SV002	9/29/2000	Null	
		EQUI 39	Null	Auxiliary Boiler	sends to	STRU 14	100	Stack/Vent	Null	3/18/2024	Null	
	Data Acquisition System	EQUI 8	DA001	U1/U2 Server	receives from	EQUI 21	Null	Continuous Emission Monitor	MR005	3/26/2024	Null	
						EQUI 22	Null	Continuous Emission Monitor	MR006	3/26/2024	Null	
						EQUI 27	Null	Continuous Emission Monitor	MR012	3/26/2024	Null	
						EQUI 28	Null	Continuous Emission Monitor	MR013	3/26/2024	Null	
						EQUI 29	Null	Continuous Opacity Monitor	MR014	3/26/2024	Null	
						EQUI 30	Null	Parametric Monitor	MR015	3/26/2024	Null	
						EQUI 31	Null	Parametric Monitor	MR016	3/26/2024	Null	
						EQUI 32	Null	Parametric Monitor	MR017	3/26/2024	Null	
						EQUI 33	Null	Parametric Monitor	MR018	3/26/2024	Null	
						EQUI 41	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 42	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 43	Null	Continuous Emission Monitor	Null	3/26/2024	Null	

Relationships

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
Equipment	Data Acquisition System	EQUI 8	DA001	U1/U2 Server	receives from	EQUI 44	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 45	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 46	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 47	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 48	Null	Continuous Emission Monitor	Null	3/26/2024	Null	
						EQUI 49	Null	Continuous Opacity Monitor	Null	3/26/2024	Null	
	Silo/Bin	EQUI 36	EU005	Lime Storage Silo	is controlled by	TREA 7	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE009	6/1/2004	Null	
					sends to	STRU 12	100	Stack/Vent	SV005	6/1/2004	Null	
		EQUI 37	EU006	Lime Storage Silo	is controlled by	TREA 8	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE010	6/1/2004	Null	
					sends to	STRU 13	100	Stack/Vent	SV006	6/1/2004	Null	
Treatment	041-Dry Limestone Injection	TREA 1	CE007	Dry Limestone Injection	is controlled in series by	TREA 5	Null	016-Fabric Filter - High Temp, T>250 Degrees F	CE005	3/18/2024	Null	
		TREA 2	CE008	Dry Limestone Injection	is controlled in series by	TREA 6	Null	016-Fabric Filter - High Temp, T>250 Degrees F	CE006	3/18/2024	Null	

CEMs

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Parameter	Primary or Backup?	Bypass Capability?	Install Date (CEMs/COMs)	Certification Date	Certification Basis	Span (ppm)	System Full Scale Value (ppm)	
EQUI 21	MR005	SO2 (EQUI 1 scrubber inlet)	Ametek	721M	VV	Sulfur Dioxide	Primary	No	3/1/2000	5/1/2000	40 CFR Pt 60	750	750	
EQUI 22	MR006	O2 (EQUI 1 scrubber inlet)	Servomax	1400	65594	Oxygen	Primary	No	3/1/2000	5/1/2000	40 CFR Pt 60	25	25	
EQUI 27	MR012	SO2 (EQUI 2 scrubber inlet)	Ametek	721M	VV	Sulfur Dioxide	Primary	No	3/1/2000	5/1/2000	40 CFR Pt 60	750	750	
EQUI 28	MR013	O2 (EQUI 2 scrubber inlet)	Servomax	1400	014206/145	Oxygen	Primary	No	3/1/2000	5/1/2000	40 CFR Pt 60	25	25	
EQUI 41	Null	CO (EQUI 1 stack)	Thermo Envi	48iQ-ABN	12228021112	Carbon Monoxide	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	2,000	2,000	
EQUI 42	Null	NOx (EQUI 1 stack)	Thermo Envi	42iQLS	12228021115	Nitrogen Oxides	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	300	300	
EQUI 43	Null	SO2 (EQUI 1 stack)	Thermo Envi	42iQHL	12228021114	Sulfur Dioxide	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	750	750	
EQUI 44	Null	O2 (EQUI 1 stack)	Servomax	490008900A1	200189MULTI..	Oxygen	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	25	25	
EQUI 45	Null	CO (EQU 2 stack)	Thermo Envi	48iQ	12228021109	Carbon Monoxide	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	2,000	2,000	
EQUI 46	Null	NOx (EQUI 2 stack)	Thermo Envi	42iQLS	1228021107	Nitrogen Oxides	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	300	300	
EQUI 47	Null	SO2 (EQUI 2 stack)	Thermo Envi	42iQHL	12228021111	Sulfur Dioxide	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	750	750	
EQUI 48	Null	O2 (EQUI 2 stack)	Servomax	490008900A1	200187MULTI..	Oxygen	Primary	No	10/27/2023	12/22/2023	40 CFR Pt 60	25	25	

COMs

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Parameter	Primary or Backup?	Bypass Capability?	Install Date (CEMs/COMs)	Certification Date	Certification Basis	Optical Path Length	
EQUI 29	MR014	Opacity (EQUI 2 stack)	Land	4500 MKII	9895321	Opacity	Primary	No	6/1/1987	6/1/1987	40 CFR Pt 60	0.5	
EQUI 49	Null	Opacity (EQUI 1 stack)	Land	4500MKII	9895324	Opacity	Primary	No	6/1/1999	6/1/1999	40 CFR Pt 60	0.5	

PMs

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Parameter Monitored	Bypass Capability? (parametric)	Install Date (parametric)	
EQUI 30	MR015	Temperature (bag house inlet) (EQUI 1)	Rosemount	3144	0302512 0599	Temperature	No	10/1/1998	
EQUI 31	MR016	Steam Flow (EQUI 1)	Rosemount	1811957	151811957-O..	Steam Flow	No	6/1/1987	
EQUI 32	MR017	Temperature (bag house inlet) (EQUI 2)	Rosemount	3144	0302511 0599	Temperature	No	10/1/1998	
EQUI 33	MR018	Steam Flow (EQUI 2)	Bailey	1811956	3178-0150 IWG	Steam Flow	No	6/1/1987	

DAS

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Primary or Backup? (DASs)	Install Date (DASs)	
EQUI 8	DA001	U1/U2 Server	ESC	Null	Null	Primary	6/1/1987	

Building

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Height	Units (height)	Length	Units (length)	Width	Units (width)	
STRU 1	BG001	Power House	78	feet	159	feet	111	feet	
STRU 2	BG002	RDF Receiving	27	feet	150	feet	144	feet	
STRU 3	BG003	Ash House	45	feet	60	feet	20	feet	
STRU 4	BG004	RDF Scalping	25	feet	20	feet	12	feet	
STRU 7	BG007	Hydraulic Storage Area	15	feet	21	feet	13	feet	
STRU 15	Null	Oil Storage Building	13	feet	22	feet	14	feet	
STRU 16	Null	Sub Station House	12.5	feet	35	feet	20.5	feet	
STRU 17	Null	Ash Conveyor Building	14.5	feet	124	feet	8	feet	
STRU 18	Null	Air Compressor/Scrubber Air Blower Building	71	feet	44	feet	24	feet	
STRU 19	Null	Lunch Room Building	9.5	feet	64	feet	16	feet	
STRU 20	Null	RDF Storage Building	27	feet	122	feet	118	feet	
STRU 21	Null	Storage Shed No. 3	14.5	feet	66	feet	14	feet	
STRU 22	Null	Screen House	28	feet	60	feet	42	feet	
STRU 23	Null	Warehouse	22.5	feet	72	feet	48	feet	
STRU 24	Null	Construction Trailer No. 2	12	feet	55	feet	11	feet	

Stack/Vents

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 8	SV002	Boiler 2	187	10	Null	Null	104,500	450	Test data	Upwards with no cap on stack/vent	
STRU 11	SV001	Boiler 1	187	7	Null	Null	104,500	450	Test data	Upwards with no cap on stack/vent	
STRU 12	SV005	Lime Silo Vent	67	3.5	Null	Null	750	70	Manufacturer	Horizontally	
STRU 13	SV006	Lime SIlo Vent	67	3.5	Null	Null	750	70	Manufacturer	Horizontally	
STRU 14	Null	Auxiliary Boiler Stack	90	1.2	Null	Null	50,000	350	Manufacturer	Upwards with a cap on stack/vent	

Fabric Filters

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?	
016-Fabric Filter - High Temp, T>250 Degrees F	TREA 5	CE005	Fabric Filter - High Temperature, i.e., T>250 Degrees F	UE / Marsulex (IPPJ1.4-20.5(6)-23.12)	1/1/1987	Arsenic compounds	100	81.2	No	Null	Other	AP-42	1	14	No	
						Lead	100	89.7	No	Null	Other	AP-42	1	14	No	
						Nickel compounds	100	92.2	No	Null	Other	AP-42	1	14	No	
						Particulate Matter	100	98.5	Yes	Other	Other	AP-42	1	14	No	
						PM < 10 micron	100	98.9	Yes	Other	Other	AP-42	1	14	No	
	TREA 6	CE006	Fabric Filter - High Temperature, i.e., T>250 Degrees F	UE / Marsulex (IPPJ1.4-20.5(6)-23.12)	1/1/1987	Arsenic compounds	100	81.2	No	Null	Other	AP-42	1	14	No	
						Lead	100	89.7	No	Null	Other	AP-42	1	14	No	
						Nickel compounds	100	92.2	No	Null	Other	AP-42	1	14	No	
						Particulate Matter	100	98.5	Yes	Other	Other	AP-42	1	14	No	
						PM < 10 micron	100	98.9	Yes	Other	Other	AP-42	1	14	No	
018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 7	CE009	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Custom (5BTB-BVI-25, Style 2)	11/6/2000	Particulate Matter	100	99	No	Null	Control Equipment Rule	Null	0.1	8	No	
						PM < 10 micron	100	93	No	Null	Control Equipment Rule	Null	0.1	8	No	
	TREA 8	CE010	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Custom (5BTB-BVI-25, Style 2)	9/7/1999	Particulate Matter	100	99	No	Null	Control Equipment Rule	Null	0.1	8	No	
						PM < 10 micron	100	93	No	Null	Control Equipment Rule	Null	0.1	8	No	

Injection Systems

AI ID (Name): 1888 (Xcel Energy - Red Wing Generating Plant)
Activity: IND20250002

Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Min Injection Rate (Units)	Max Injection Rate (Units)	Material Injected	
041-Dry Limestone Injection	TREA 1	CE007	Dry Limestone Injection	UE / Marsulex (IPPJ1.4-20.5(6)-23.12)	12/5/2002	Hydrochloric acid	100	99.2	Yes	Large	Other	AP-42	14.9 (pounds per hour)	100 (pounds per hour)	Limestone, dry	
						Sulfur Dioxide	100	88.7	Yes	Other	Other	AP-42	14.9 (pounds per hour)	100 (pounds per hour)	Limestone, dry	
	TREA 2	CE008	Dry Limestone Injection	UE / Marsulex (IPPJ1.4-20.5(6)-23.12)	12/5/2002	Hydrochloric acid	100	99.2	Yes	Large	Other	AP-42	14.9 (pounds per hour)	100 (pounds per hour)	Limestone, dry	
						Sulfur Dioxide	100	88.7	Yes	Other	Other	AP-42	14.9 (pounds per hour)	100 (pounds per hour)	Limestone, dry	

SI Id	Sequence	Requirement
TFAC 2	1	The Permittee shall take a sample : Due quarterly; the Permittee shall collect ash samples. Sample collection must commence within 7 days of January 15, April 15, July 15, and October 15, unless otherwise approved by the commissioner. Quarterly samples and an annual composite sample formed from equal portions of the quarterly samples must be analyzed according to Minn. R 7035.2910, subp. 5. Quarterly samples must be analyzed within appropriate sample holding times, or 45 days after the sample is collected, whichever is less. The Permittee must analyze the annual composite sample according to Minn. R. 7035.2910, subp. 4, item A, Tables 1 and 2. [Minn. R. 7000.7000, variance (10/18/1996), Minn. R. 7007.0800, subp. 5, Minn. R. 7007.0801, subp. 2(D), Minn. R. 7035.2910, subp. 3]
TFAC 2	2	Waste Composition Study: due before the end of each calendar 60 months starting 12/31/2023. The Permittee must submit the waste composition study 45 days after completion of the study. The Waste Composition Study and Sample Analysis Report shall be conducted on each waste stream from which RDF is produced as described in Minn. R. 7007.0501, subp. 2(A), which includes Red Wing City of Red Wing Resource & Recovery Facility and Ramsey/Washington County Energy Recovery Facility. [Minn. R. 7007.0501, subp. 2(A), Minn. R. 7011.1270, subp. A(6)]
TFAC 2	3	The Permittee shall submit a report : Due annually by March 15 of each year for ash testing. The ash testing report must contain the information listed in Minn. R. 7035.2910, subp. 10(A) - (F) (listed below). A. Results of quarterly and annual analyses of ash as required by Minn. R. 7035. Total composition results must be reported on a dry weight basis. B. Discussion of the data, including identification of trends observed by comparing the most recent year's results with those of previous years. In particular, the Permittee must assess whether the waste combustor is in compliance with the goals of Minnesota Statutes, section 115A.97, subdivision 1, clause (1). C. Data quality assurance assessment, including the following: (1) precision and accuracy of each method used; (2) representativeness of the samples; (3) potential effect of any field or laboratory contamination on the sampling results; and (4) qualification or rejection of data based on the results of quality control samples. D. Information summarizing operation of the waste combustor during the ash sampling periods, and data regarding ash sample processing recorded according to Minn. R. 7035.2910, subp. 9. Operating information must include an estimate of the quantity and type of wastes other than mixed municipal solid waste which were combusted at the facility during the ash sampling period. If leachate was added to the waste during the sampling period, the quantity of leachate added and source of the leachate must be noted. E. Certification by the Permittee that samples analyzed to fulfill the requirements of this part were collected according to the plan required by Minn. R. 7035.2910, subp. 6, and that no actions were taken during the sample collection period to intentionally affect the results of ash sample analysis so that the results would not be representative of ash typically generated by the waste combustor. Such actions may include, for example, altering the type of waste combusted during the sampling period. F. Identification of any changes in test methods or parameters made in accordance with Minn. R. 7035.2910, subp. 4, items D and E. [Minn. R. 7035.2910, subp. 10]

SI Id	Sequence	Requirement
TFAC 2	4	The Permittee shall design, construct, and operate the facility in compliance with the solid waste management requirements as set forth in Minn. R. 7011.1245, items A to H. Plans required in the items in Minn. R. 7011.1245 shall identify those required portions of the plan which are not applicable. A. security requirements in Minn. R. 7035.2535, subp 3; B. general inspection requirements in Minn. R. 7035.2535, subp. 4; C. household hazardous waste management requirements of Minn. R. 7035.2535, subp. 6; D. emergency preparedness and prevention plans and emergency procedures shall be prepared in accordance with Minn. R. 7035.2595 and Minn. R. 7035.2605; E. contingency action plans in Minn. R. 7035.2615; F. closure plans in Minn. R. 7035.2625 and closure procedures in Minn. R. 7035.2635; G. solid waste transfer facility requirements as required in Minn. R. 7035.2870; and H. for waste combustors accepting infectious wastes, infectious waste management requirements of Minn. R. 7035.9100 to 7035.9150. [Minn. R. 7011.1245]
TFAC 2	5	All industrial solid waste delivered to a solid waste management facility must be managed by the Permittee to protect human health and the environment. The industrial solid waste management plan for a municipal solid waste combustor ash land disposal facility does not need to comply with items B and C. A. The industrial waste management plan must include a discussion of how the Permittee will manage all industrial solid wastes received at the facility. The Permittee must specify: (1) a procedure for notifying industrial solid waste generators of the facility operating requirements and restrictions, including the requirements imposed on haulers serving the facility, the steps required of generators submitting a request for waste management, and the measures to be taken to inform haulers and generators of the facility requirements; (2) a procedure for evaluating waste characteristics, including the specific analyses that may be required for specific wastes, and the criteria used to determine when analyses are necessary, the frequency of testing, and the analytical methods to be used; (3) a procedure for managing the waste and for identifying any special management requirements, and the rationale for accepting or rejecting a waste based on its analysis, volume, and characteristics; (4) a procedure for inspecting industrial solid waste as it is delivered and the rationale for accepting or requiring further information and review of previously approved and unapproved waste as it is delivered. [Minn. R. 7011.1250, subp. 1, Minn. R. 7035.2535, subp. 5(A)]
TFAC 2	6	The industrial waste management plan must address how the following categories of waste will be managed to comply with the requirements of Minn. R. 7035.2535, subp. 5, item A, subitems (2) to (4): (1) empty pesticide containers; (2) asbestos; (3) waste containing polychlorinated biphenyls at a concentration less than 50 ppm; (4) spilled nonhazardous materials; (5) rendering and slaughterhouse wastes; (6) wastes that could spontaneously combust or that could ignite other waste because of high temperatures; (7) foundry waste; (8) ash from incinerators, resource recovery facilities, and power plants; (9) paint residues, paint filters, and paint dust; (10) sludges, including ink sludges, lime sludge, wood sludge, and paper sludge; (11) fiberglass, urethane, polyurethane, and epoxy resin waste; (12) spent activated carbon filters; and (13) any other wastes that can be identified. [Minn. R. 7011.1250, subp. 1, Minn. R. 7035.2535, subp. 5(B)]

SI Id	Sequence	Requirement
TFAC 2	7	The industrial waste management plan must address how the following additional categories of solid waste will be managed to comply with the requirements of Minn. R. 7035.2535, subpart 5, item A, subitems (2) to (4), as well as state whether each of the following solid wastes will be accepted at the facility: A. spilled fossil fuels and the sorbents used to collect the spilled fossil fuels; B. infectious and pathological wastes; C. media contaminated with oil; D. problem materials as defined in Minnesota Statutes, section 115A.03, subdivision 24a; and E. any other solid wastes that can be identified that would adversely impact waste combustor operations or result in environmental and health problems if combusted. [Minn. R. 7011.1250, subp. 1, Minn. R. 7011.1250, subp. 2]
TFAC 2	8	The Permittee shall maintain and abide by the Permittee's industrial waste management plan. The Permittee must maintain copies of all waste management plans for each facility that provides refuse derived fuel (RDF) to the Permittee. [Minn. R. 7007.0501, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7007.0801, subp. 2(E), Minn. R. 7011.1250]
TFAC 2	9	In applications for permit reissuance, the Permittee shall include summary performance test data collected under the requirements of Minn. R. 7011.1270 which represent the current operating practices of the waste combustor. [Minn. R. 7007.0501, subp. 3]
TFAC 2	10	The Permittee must modify the industrial waste management plan whenever the management practices or solid waste identified in the plan have changed. The Permittee must submit the amended plan to the commissioner for approval. [Minn. R. 7011.1250, subp. 3]
TFAC 2	11	The Permittee shall maintain and abide by the Permittee's plan to reduce the level of toxic contaminants in ash at the facility. [Minn. R. 7007.0501, subp. 6(A), Minn. R. 7007.0800, subp. 5]
TFAC 2	1240	In applications for permit reissuance, the Permittee must provide for each of the previous five years, the amount of waste combusted, the amount of flue gas conditioning chemicals used, and the amount of ash disposed. The ratio of ash generated less flue gas conditioning agents to waste combusted shall be computed for each of the previous five years. The application shall also include data on the constituents of the waste combustor's ash and how to further reduce the level of toxic contaminants in the ash. [Minn. R. 7007.0501, subp. 6(B)]
TFAC 2	1245	The Permittee must perform ash sampling according to an ash sampling plan approved by the commissioner. The Permittee shall maintain the approved ash sampling plan at the facility. Proposed changes to sampling equipment or procedures must be submitted to the commissioner, Regional Environmental Management, Metro Region, Regular Waste Management and Wastewater Sector Unit for review and approval. The plan must contain at least the following information: A. specification of the training and experience qualifications of persons who collect ash samples; B. description of equipment used to collect, process, and store ash samples; C. identification of sampling equipment cleaning procedures and other actions taken to prevent sample contamination; D. identification of the location or locations where ash samples are collected; E. description of procedures used to collect grab samples; F. description of procedures used to process grab samples to form composite samples; G. description of chain-of-custody and sample storage procedures; and H. identification of ash sampling quality assurance and quality control measures. The Permittee shall submit the plan and any amendments to the plan to the Regular Facilities Unit in the Rochester Subdistrict Office for approval. [Minn. R. 7007.0801, subp. 2(D), Minn. R. 7035.2910, subp. 6]

SI Id	Sequence	Requirement
TFAC 2	1260	The Permittee shall maintain ash management plans for disposal of the ash generated by the waste combustor, treatment of water generated from quenching the ash at the facility, and any plans which the applicant has for ash utilization. The plans shall include the sites and processes for management and final disposal of the ash, and shall identify any permits the Permittee needs to use each site or process, including permits for leachate treatment. The Permittee shall include the ash management plan with any air permit application. [Minn. R. 7007.0501, subp. 7]
TFAC 2	1280	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices. Appendix C, D, E, F, and H are the most up-to-date versions as of permit issuance and are listed in this permit for reference. The Permittee must comply with all current plans approved by the commissioner. A. Insignificant activities and general applicable requirements; B. 40 CFR pt. 63, subp. A requirements; C. Fugitive Emission Control Plan; D. Waste Composition Study; E. Industrial Solid Waste Management Plan; F. RDF Transfer Station and Unloading Area Housekeeping Plan; G. 1996 MSW Combustor Ash Testing Variance; and H. Ash Management Plan. [Minn. R. 7007.0800, subp. 2(A) & (B)]
TFAC 2	1290	The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0100, subp. 7(X), Minn. Stat. 116.385]
TFAC 2	1300	PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
TFAC 2	1380	Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and recordkeeping specified in the fugitive dust control plan in Appendix C of this permit. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7009.0020, Minn. R. 7011.0150, Minn. Stat. 116.07, subd. 4a(a)]
TFAC 2	1400	The Permittee must 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 must be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
TFAC 2	1410	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]
TFAC 2	1420	The Permittee must at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them that are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. [Minn. R. 7007.0800, subp. 16(J)]

SI Id	Sequence	Requirement
TFAC 2	1430	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
TFAC 2	1440	Operation Changes: In any shutdown, breakdown, or deviation the Permittee must immediately or as soon as possible considering plant and personnel safety take all practical steps to modify operations to reduce the emission of any regulated air pollutant. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment are permitted to operate. [Minn. R. 7019.1000, subp. 4]
TFAC 2	1450	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
TFAC 2	1460	Noise: The Permittee must comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
TFAC 2	1470	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
TFAC 2	1480	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
TFAC 2	1490	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
TFAC 2	1500	Performance Test Notifications and Submittals: Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due seven days before each Performance Test Performance Test Report: due 45 days after each Performance Test The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]
TFAC 2	1510	HCl Performance Test Report: The Permittee must include the SO2 inlet and outlet CEMS data recorded during the time of the performance test as an appendix to the test report. The Permittee must also include chlorine as part of the ultimate fuel analysis. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7017.2017, Minn. R. 7017.2035, subp. 3]
TFAC 2	1520	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
TFAC 2	1530	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
TFAC 2	1540	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]

SI Id	Sequence	Requirement
TFAC 2	1550	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
TFAC 2	1560	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
TFAC 2	1570	The Permittee must maintain records adequate to document compliance at the stationary source, including at a minimum: (1) the date, place, and time of any sampling or measurement; (2) the date or dates any analyses were performed; (3) the company or entity that performed the analyses; (4) the analytical techniques or methods used; (5) the results of such analyses; and (6) the operating conditions existing at the time of sampling or measurement. [Minn. R. 7007.0800, subp. 5(A)]
TFAC 2	1610	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
TFAC 2	1620	These following 40 CFR 52.21(r)(6) requirements apply if a reasonable possibility (RP) as defined in 40 CFR 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at 40 CFR 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of 40 CFR 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
TFAC 2	1630	Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing emission unit, and the projected post-change potential emissions of any affected existing or new emission unit. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the emission unit could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7007.1200, subp. 4, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]

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TFAC 2	1640	Post-change Emissions - The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
TFAC 2	1650	The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the Facility, and the name and telephone number of the Facility contact person. b. The annual emissions identified in the Post-change Emissions requirement (above); and c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
TFAC 2	1670	Shutdown Notifications: Notify the commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the Permittee does not have advance knowledge of the shutdown, the Permittee must notify the commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator must inform the commissioner of the cause of the shutdown and the estimated duration. The owner or operator must notify the commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]
TFAC 2	1680	Breakdown Notifications: Notify the commissioner within 24 hours of a breakdown of more than one hour of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the Permittee must inform the commissioner of the cause of the breakdown and the estimated duration. The Permittee must notify the commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]
TFAC 2	1700	Notification of Deviations Endangering Human Health or the Environment: Immediately after discovery of the deviation or immediately after when the deviation reasonably should have been discovered, notify the commissioner either orally or by e-mail, or telephone the state duty officer at 800-422-0798 or 651-649-5451, of any deviation from permit conditions that could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]
TFAC 2	1703	Notification of Deviations Endangering Human Health or the Environment Report: Within two working days of discovery, notify the commissioner in writing of any deviation from permit conditions that could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]

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TFAC 2	1710	The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]
TFAC 2	1730	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed. Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]
TFAC 2	1740	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
TFAC 2	3340	The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]
TFAC 2	3341	Within 15 days of a request from the Commissioner, the Permittee must provide a complete summary of all performance tests required at the facility including the subject item, pollutant, most recent test date (if applicable), and the date of the next test in an approved format. [Minn. R. 7007.0800, subp. 16(L)]
TFAC 2	3342	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
TFAC 2	3343	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
TFAC 2	3344	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
TFAC 2	3345	The Permittee shall submit excess emission/downtime report : Due by 30 days after the end of each calendar quarter following permit issuance. Submit this on form DRF-1 (Excess Emissions Reporting) as amended. The EER shall indicate all periods of monitor bypass and exceedances of the limit including those allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions, as well as a summary of audit results and frequencies. If no excess emissions, downtime or bypasses occurred during the quarter, submit a signed report supplying the necessary monitor data needed to verify this. [Minn. R. 7017.1110, subp. 1-2]
COMG 1	26	During start-up from a cold furnace, the Permittee must use auxiliary fuels to achieve combustion chamber operating temperature. The use of solid waste solely to provide thermal protection of the grate or hearth during the start-up period when solid waste is not being fed to the grate is not considered to be continuous burning. [Minn. R. 7011.1240, subp. 3]
COMG 1	27	The Permittee must use natural gas to warm the combustion and pollution control devices and maintain good combustion conditions in the combustion chamber from the time the RDF feed has been discontinued until the combustion chamber is clear of combustible material or active combustion ceases. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	28	Fuel Type: Refuse derived fuel as defined in Minn. R. 115A.03, subp. 21 and natural gas. The Permittee may burn wood, used oil generated on site and as defined in Minn. R. 7045.0020, subp.60a and sorbents that contain used oil, and other nonhazardous wastes approved through the facility's Industrial Waste Management Plan. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	29	The Permittee must not combust wood, used oil, or other approved nonhazardous wastes in any waste combustor as a separate waste stream. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	30	The Permittee must not combust yard waste or tires. [Minn. R. 7011.1220, subp. 2]

SI Id	Sequence	Requirement
COMG 1	35	The Permittee must develop and update on a yearly basis a site specific operating manual that must, at a minimum, address the following elements of EQUI 1 and EQUI 2 operation: A. a summary of the applicable state rules and federal regulations to the activities described in the facility's air emissions permit; B. a description of basic combustion theory applicable to the facility's waste combustor unit; C. procedures for receiving, handling, and feeding solid waste; D. EQUI 1 and EQUI 2 start-up, shutdown, and malfunction procedures; E. procedures for maintaining proper combustion air levels; F. procedures for operating the waste combustors, EQUIs 1 and 2, within the standards established in Minn. R. 7011.1201 to 7011.1294; G. procedures for responding to periodic upset or off-specification conditions; H. procedures for minimizing particulate matter carryover; I. procedures for monitoring the degree of solid waste burnout; J. procedures for handling ash;
		K. procedures for monitoring waste combustor emissions; L. procedures for reporting and record keeping; M. timetables and procedures for routine inspection and maintenance of equipment affecting air emissions; N. procedures for activating communications and alarm systems; and O. procedures to implement the facility's industrial waste management plan. The Permittee must also include any operational changes resulting from emissions performance testing results in the operating manual. The Permittee must keep the operating manual in a location easily accessed by chief facility operators, shift supervisors, operator supervisors, control room personnel, ash handlers, maintenance personnel, and crane/load handlers. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.1275, subp. 3]

SI Id	Sequence	Requirement
COMG 1	36	The Permittee must establish a program to review the plant-specific operating manual with waste combustor facility personnel who have responsibilities which affect the operation of EQUI 1 and/or EQUI 2, including, but not limited to, chief facility operators, shift supervisors, operator supervisors, control room personnel, ash handlers, maintenance personnel, and crane/load handlers. The waste combustor facility personnel must complete a program of instruction and on-the-job training based on the plant-specific operating manual. The Permittee must train facility personnel to maintain compliance with Minn. R. 7011.1201 to 7011.1294. Individual training must be specific to the position held and shall, at a minimum, address the items in Minn. R. 7011.1275, subp. 3. The training program must require: A. initial review of the operating manual prior to assumption of any job-related activities affecting air emissions; B. review of the operating manual relevant to a newly assigned position before assumption of new job-related activities affecting air emissions; C. that those without waste combustor or boiler operation experience, initially review the operating manual and work under the direct supervision of a certified operator or a certified operator's designee before assumption of job-related activities affecting air emissions for 40 hours; D. annual review of the operating manual; and
COMG 1	39	The Permittee must maintain as a part of the operating record required by Minn. R. 7011.1285, subp. 2, a record of the identity of all personnel who have received training and the number of training hours. The records shall be provided to the commissioner on demand. [Minn. R. 7011.1275, subp. 4]
COMG 1	40	The Permittee must maintain at the facility for five years a record of the names of all personnel that the waste combustor examiner has certified. This record shall contain the examination dates, the nature or content of the examination, the full name of the individual certified, the date of certification, and the signature of the certified examiner for that facility with the following certification: "I certify under penalty of law that, based on my examination of these persons, these persons have demonstrated the knowledge and skills that qualify these persons to be fully certified operators at (name of waste combustor facility) in accordance with the procedures of Minnesota Rules, parts 7011.1280 to 7011.1284.". [Minn. R. 7011.1284, subp. 3]
COMG 1	41	The Permittee must maintain at the facility for five years a record of the names of all personnel who have obtained provisional and/or full certification by ASME. [Minn. R. 7011.1284, subp. 3a]
COMG 1	42	The Permittee must allow the commissioner to review all records related to the certification of operators including the facility's program for examination and certification of operators, the record required in Minn. R. 7011.1284, subp. 3, the content of the examinations, and the results on an individual's examination. [Minn. R. 7011.1284, subp. 4]
COMG 1	43	A chief facility operator or shift supervisor who holds a certificate as described in Minn. R. 7011.1281, subp. 1 must be present at the waste combustor facility at all times when solid waste is being combusted, except if individuals are assuming the duties of chief facility operator or shift supervisor, the individuals must obtain full certification as described in Minn. R. 7011.1281 within six months of assuming such duties. [Minn. R. 7011.1240, subp. 1(A), Minn. R. 7011.1240, subp. 1a, Minn. R. 7011.1281]
COMG 1	44	The Permittee must maintain and keep all records on site and all required submittals in paper copies or electronic format for at least five years. The Permittee must make all records available for submittal to the Administrator or Commissioner, or for onsite review by an inspector, Administrator, or Commissioner. The Permittee shall retain all records of continuously measured emissions for a minimum of five years. The Permittee shall retain current records of design, construction, installation, calibration, and use of nozzles and orifices for boiler load level monitoring. [Minn. R. 7007.0800, subp. 5, Minn. R. 7011.1285, subp. 1]

SI Id	Sequence	Requirement
COMG 1	66	The Permittee must maintain a record of the information listed below. The Permittee must maintain a permanent record of continuously measured parameters. The record of monitoring shall contain: a) the calendar date; b) the following measurements recorded in a manner that allows the data to be immediately accessed upon inspection by the Commissioner: 1) all six-minute opacity readings; 2) all one-hour average sulfur dioxide emission concentrations at the inlet and outlet of the acid gas control device if compliance is based on a percent reduction, or at the outlet only if compliance is based on the outlet emission limit; and 3) all one-hour average carbon monoxide and nitrogen oxide emission concentrations, steam flow, or alternative unit load measurement parameter as described in Minn. R.7011.1265, subpart 4a, combustion chamber temperature, and flue gas temperatures at the inlet of the particulate matter control device; c) the following average concentrations and parameters: 1) all 24-hour daily geometric average percent reductions in sulfur dioxide emissions or all 24-hour daily geometric average sulfur dioxide emission concentrations, as applicable; 2) all 24-hour daily arithmetic average nitrogen oxides emission concentrations; 3) all four-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable; and 4) all four-hour block arithmetic average unit load levels, and particulate matter control device inlet temperatures. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7011.1260, subp. 6]
COMG 1	67	The Permittee must submit a report containing the results of performance tests conducted to determine compliance with waste combustor unit emission limits whenever performance testing is conducted. The Permittee must submit the report according to the conditions of Minn. R. 7017.2035. [Minn. R. 7011.1285, subp. 6]
COMG 1	68	Alternative continuous measuring methods in place of steam flow may be installed and operated, provided that the method continuously measures the waste combustor unit load, is equivalent to results obtained when using the method in Minn. R. 7011.1265, subp. 4, and the use of the method is approved by the commissioner. [Minn. R. 7011.1265, subp. 4a]
COMG 1	69	The Permittee must use the performance test methods and procedures specified in Minn. R. 7017.2001 to 7017.2060 except as modified in Minn. R. 7011.1265. Not operating a sorbent injection system for the sole purpose of testing in order to demonstrate compliance with the percent reduction standards for hydrogen chloride is not a modification under Minn. R. 7007.0100, subpart 14. [Minn. R. 7011.1265, subp. 1]
COMG 1	83	The Permittee must maintain records and submit reports as required in Minn. R. 7011.1285. The Permittee is subject to the recordkeeping and reporting requirements in Minn. R. 7007.0800, subparts 5 and 6. The Permittee must maintain on site all submittals required by Minn. R. 7011.1285 as paper copies for five years. [Minn. R. 7011.1285, subp. 1]
COMG 1	89	Recordkeeping: The Permittee must maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	90	The Permittee must retain all continuously measured emission records for a minimum of five years. Regarding boiler load level monitoring, the Permittee must retain current records of design, construction, installation, calibration, and use of nozzles and orifices. The Permitee must maintain the above records in a reviewable format at the facility and make them available upon request. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	91	Shutdown or Breakdown Reporting Requirements: The Permittee must comply with Minn. R. 7019.1000 and Minnesota Statutes, section 116.85. Notification to the commissioner for any shutdowns/breakdown is not required if RDF feed is planned to be taken off-line in conjunction with a shutdown. [Minn. R. 7011.1240, subp.

SI Id	Sequence	Requirement
COMG 1	97	Quarterly Report: due 30 days after end of each calendar quarter following permit issuance. The report must contain the following items: A. calendar date; B. sulfur dioxide, nitrogen oxide, and carbon monoxide emissions, the maximum load level for each waste combustor unit, and particulate matter control device temperatures as recorded by Minn. R. 7011.1260, subp. 6(C) and the daily maximum opacity reading as recorded by Minn. R. 7011.1260, subp. 6(B)(1). The Permittee may choose to provide this information in tabular or graphic form. The graphs shall be prepared as follows: (1) the graph shall represent one operating parameter or pollutant; (2) the applicable limit of the parameter or pollutant shall be indicated on the graph; and (3) data shall be expressed in the same units as the applicable operating parameter or emissions limit; C. instances of dumpstack use; D. the identification of operating days when any of the average emission concentrations, percent reductions, operating parameters specified under Minn. R. 7011.1260, subp. 6(C) or Minn. R. 7011.1272, subp. 2, or the opacity level exceeded the applicable limits. The report shall include the emission levels recorded during the exceedance, reasons for such exceedances as well as a description of corrective actions taken;
		E. the percent of the operating time for the quarter that the opacity CEMS was operating and collecting valid data; F. the identification of operating days for which the minimum number of hours that emission concentrations, percent reductions, operating parameters specified under Minn. R. 7011.1260, subp. 6(C) or Minn. R. 7011.1272, subp. 2, or the opacity level have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; G. the results of daily sulfur dioxide, nitrogen oxides, and carbon monoxide CEMS drift tests and accuracy assessments as required in Minn. R. 7011.1260, subp. 5; H. the information required in Minn. R. 7011.1285, subp. 2(C), (D), and (E), summarized to reflect quarterly totals; I. a compliance certification as required in Minn. R. 7007.0800, subp. 6(C); and J. if an additive is used to comply with mercury or PCDD/PCDF emission limits, the total additive used during the calendar quarter, as specified in Minn. R. 7011.1272, subp. 3(B), with supporting calculations. [Minn. R. 7011.1285, subp. 3]
COMG 2	2230	Additional monitoring requirements may apply. The Permittee is responsible for meeting all applicable requirements. [Minn. R. 7007.0800, subp. 4(A)]
COMG 2	2240	Nitrogen Oxides: Nitrogen Oxides: Emissions Monitoring: The Permittee must use a CEMS to measure emissions from EQUI 1 and EQUI 2, each. For nitrogen oxides, the arithmetic average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time must be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1260, subp. 4(E), Minn. R. 7017.1010, subp 1]

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COMG 2	2242	Sulfur Dioxide: Emissions Monitoring: The Permittee must use a CEMS to measure emissions from EQUI 1 and EQUI 2, each. For sulfur dioxide, the geometric average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time shall be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1260, subp. 4(D), Minn. R. 7017.1010, subp. 1]
COMG 2	2244	Compliance with the sulfur dioxide emission limit and percent reduction must be determined by using a continuous emission monitor to measure sulfur dioxide and calculating a 24-hour daily geometric mean emission concentration and daily geometric mean percent reduction using 40 CFR pt. 60, Appendix A, Method 19, section 5.4, as amended, to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration. [Minn. R. 7011.1260, subp. 4a(A)]
COMG 2	2246	Compliance with the nitrogen oxides emission standards must be determined by using a continuous emission monitor for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using 40 CFR pt. 60, Appendix A, Method 19, section 4.1, as amended. [Minn. R. 7011.1260, subp.
COMG 2	2248	The following averaging periods apply to continuous monitoring data collection, reduction, and averaging periods: - For particulate matter control device inlet temperature monitoring, four-hour arithmetic block averages calculated from four consecutive one-hour arithmetic averages. - For steam flow, four-hour arithmetic block averages. - For carbon monoxide, a daily 24-hour arithmetic average measured between 12 midnight and the following midnight. The four-hour and 24-hour average must be calculated from one-hour arithmetic averages. At least four points equally spaced in time shall be used to calculate each one-hour average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. - For oxygen or carbon dioxide, a one-hour average. [Minn. R. 7011.1260, subp. 4(A), Minn. R. 7011.1260, subp. 4(B), Minn. R. 7011.1260, subp. 4(C), Minn. R. 7011.1260, subp. 4(G)]
COMG 2	2260	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2. Test plans and reports must be submitted in a format specified by the commissioner. [40 CFR 60.7(a)(5), Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 2	2270	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Continuous monitors must be operated to measure and record data for at least 75 percent of the hours per day for 90 percent of the days of the calendar quarter that the waste combustor is operating and combusting solid waste. [40 CFR 60.13(e), Minn. R. 7011.1260, subp. 5(B), Minn. R. 7017.1010, subp. 1(A), Minn. R. 7017.1090]

SI Id	Sequence	Requirement
COMG 2	2280	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must contain all of the information required by 40 CFR Part 60, Appendix F, Section 3. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [40 CFR pt. 60, Appendix F, 3, Minn. R. 7017.1010, subp. 1(C), Minn. R. 7017.1170, subp. 2]
COMG 2	2290	CEMS QA/QC: The Permittee is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection. [40 CFR 60.13(a), 40 CFR pt. 60, Appendix F, Minn. R. 7017.1010, subp. 1(A)]
COMG 2	2300	CEMS Daily Calibration Drift Test: Check the zero (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 daily. The zero and span must, at a minimum, be adjusted whenever the drift exceeds two times the limit specified in 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, Section 4.3.1 must be used to determine out-of-control periods for CEMS. [40 CFR 60.13(d)(1), 40 CFR pt. 60, Appendix F, 4.1, Minn. R. 7017.1010, subp. 1(A), Minn. R. 7017.1170, subp. 3]
COMG 2	2310	Recordkeeping: The Permittee shall retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [40 CFR 60.7(f), Minn. R. 7017.1130, Minn. R. 7019.0100, subp. 1]
COMG 2	2320	CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period. [40 CFR 60.13(e)(2), Minn. R. 7017.1010, subp. 1(A)]
COMG 2	2360	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [40 CFR 60.13(b), Minn. R. 7017.1010, subp. 1(A)]
COMG 3	2680	Additional monitoring requirements may apply. The Permittee is responsible for meeting all applicable requirements. [Minn. R. 7007.0800, subp. 4(A)]
COMG 3	2700	Monitoring Data: All COMS data must be reduced to six-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each six-minute period. [40 CFR 60.13(e)(1), 40 CFR 60.13(h)(2), Minn. R. 7017.1200, subp. 1-3]
COMG 3	2720	Emissions Monitoring: The Permittee must use a COMS to measure emissions from EQUI 1 and EQUI 2, each. [40 CFR pt. 60, Subp. Cb, Minn. R. 7017.1010, subp 1]
COMG 3	2730	Continuous Operation: COMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A COMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [40 CFR 60.13(e), Minn. R. 7017.1090]
COMG 3	2740	QC Program: the facility owner or operator must conduct quality assurance and quality control as specified in Procedure 3 - Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources, 40 CFR Pt. 60, Appendix F. [Minn. R. 7017.1215]
COMG 3	2750	COMS Daily Calibration Drift Test: The Calibration Drift must be quantified and recorded at zero (low-level) and upscale (high-level) calibration drift at least once daily according to the procedures listed in 40 CFR 60.13(d)(2) and pt. 60, Appendix B, PS 1. The zero and upscale calibration levels must be determined using the span value specified in the applicable requirement. If the applicable requirement does not specify a span value, a span value of 60, 70, or 80 percent opacity must be used unless an alternative span value is approved by the commissioner. 40 CFR pt. 60, Appendix F must be used to determine out-of-control periods for COMS. [40 CFR 60.13(d)(1), Minn. R. 7017.1215]
COMG 3	2760	COMS Calibration Error Audit Results Summary: due 30 days after end of each calendar quarter in which the COMS calibration error audit was completed. [Minn. R. 7017.1220]
COMG 3	2780	Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
COMG 3	2790	Notification of Compliance Status: Due 30 days before performance test required by 40 CFR 60.8 if COMS data results will be used in lieu of 40 CFR, Part 60, Appendix A, Method 9 observation data to determine compliance with the opacity standard as allowed by 40 CFR 60.11(e)(5). [40 CFR 60.7(a)(7)]

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COMG 3	2830	COMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the COMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
EQUI 1	1	Steam Flow <= 124,299 pounds per hour on a four hour block average. This is 110% of the steam production during the most recent EQUI 1 test (April 22-30, 2025) that demonstrated compliance for PCDD/PCDF emissions. Steam production shall not exceed 124,299 pounds per hour until a new test is conducted to establish a new maximum steam production capacity or as allowed by Minn. R. 7011.1240, subp. 5 as described below. [Minn. R. 7011.1240, subp. 5]
EQUI 1	2	Applicability of Standards. The standards of Minn. R. 7011.1227, Minn. R. 7011.1228, Minn. R. 7011.1229, Minn. R. 7011.1230, Minn. R. 7011.1233, Minn. R. 7011.1240, subp. 2, and Minn. R. 7011.1272, subp. 2, apply at all times when waste is being continuously burned, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction does not exceed three hours. Fugitive emissions standards applicable to ash conveying systems do not apply during maintenance and repair of ash conveying systems. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown are not considered malfunctions. The start-up period commences when the waste combustor begins the continuous burning of solid waste and does not include any warm-up period when the waste combustor is combusting fossil fuel or other solid fuel. Continuous burning is the continuous, semicontinuous, or batch feeding of solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of solid waste solely to provide thermal protection of the grate or hearth during the start-up period when municipal solid waste is not being fed to the grate is not considered to be continuous burning. [Minn. R. 7011.1215, subp. 4]
EQUI 1	3	The Permittee must not cause gases to be emitted from EQUI 1 in excess of the applicable standards of Minn. R. 7011.1227 and 7011.1228. Emissions, except opacity, must be calculated under standard conditions corrected to seven percent oxygen on a dry volume basis. The Permittee may determine compliance with the emission limitations using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. [Minn. R. 7011.1225, subp. 1(A)]
EQUI 1	4	The Permittee must limit combustion ash from an ash conveying system, or buildings or enclosures of ash conveying systems, including conveyor transfer points, Visible Emissions <= 5 percent of the observation period (i.e. 9 minutes per three-hour period) (hourly observation period using three 1-hour observation periods), as determined by 40 CFR pt. 60, Appendix A, Method 22, as amended. This limit does not apply to visible emissions discharged inside buildings or enclosures of ash conveying systems. [Minn. R. 7011.1225, subp. 1(B)]
EQUI 1	5	The Permittee must limit emissions of Front-half Particulate Matter <= 0.011 grains per dry standard cubic foot. This limit is applied in accordance with the "Applicability of Standards" stated in this permit. [Minn. R. 7011.1227]
EQUI 1	6	The Permittee must limit emissions of Particulate Matter <= 0.020 grains per dry standard cubic foot. This limit is applied in accordance with the "Applicability of Standards" stated in this permit. [Minn. R. 7011.1227]
EQUI 1	7	The Permittee must limit emissions of Particulate Matter <= 25 milligrams per dscm, corrected to 7 percent oxygen. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 1	8	The Permittee must limit Opacity <= 10 percent opacity 6-minute average, calculated using 36 or more data points equally spaced over a six-minute period. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp.4(F)]
EQUI 1	9	The Permittee must limit emissions of Sulfur Dioxide <= 29 parts per million or 75 percent control, whichever is less stringent. The Permittee must measure emissions using the geometric average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time shall be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp. 4(D)]

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EQUI 1	10	The Permittee must limit emissions of Carbon Monoxide <= 200 parts per million using a daily 24-hour arithmetic average measured between 12 midnight and the following midnight. The four-hour and 24-hour average must be calculated from one-hour arithmetic averages. At least four points equally spaced in time shall be used to calculate each one-hour average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp. 4(C)]
EQUI 1	11	The Permittee must limit emissions of Nitrogen Oxides <= 250 parts per million using the arithmetic average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time must be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1228, Minn. R. 7011.1260, subp. 4(E)]
EQUI 1	12	The Permittee must limit emissions of Nitrogen Oxides <= 230 parts per million 24-hour block average basis when averaging nitrogen oxide emissions across the waste combustor facility. If emissions averaging is used, the Permittee shall average nitrogen oxide emissions according to the procedures in 40 CFR 60.33b(d)(1). Prior to using emissions averaging to comply with this limit, the Permittee must identify that they plan to use emissions averaging in the annual report required in Minn. R. 7011.1285, subp. 4. Partial year averaging is allowed upon written approval of the commissioner. [Minn. R. 7011.1228, Minn. R. 7011.1260, subp. 4(E)]
EQUI 1	13	The Permittee must limit emissions of Lead <= 400 microgram per dry std cubic meter, measured using 40 CFR pt. 60, Appendix A, Method 29, as amended. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for lead. The average of the lead emission concentrations from three test runs or more must be used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]
EQUI 1	14	The Permittee must limit emissions of Muni Waste Combust Organics <= 30 nanogram per dry std cubic meter, measured as total PCDD/PCDF. The Permittee must use 40 CFR pt. 60, Appendix A, Method 23, as amended, to determine compliance with the PCDD/PCDF emission limits. The minimum sample time is four hours per test run. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 23 test run for PCDD/PCDF. The average of the PCDD/PCDF test runs is used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(B)]
EQUI 1	15	The Permittee must limit emissions of Cadmium <= 35 microgram per dry std cubic meter, measured using 40 CFR pt. 60, Appendix A, Method 29, as amended. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for cadmium. The average of the cadmium emission concentrations from three test runs or more must be used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]
EQUI 1	16	The Permittee must limit emissions of Hydrogen Chloride <= 29 parts per million or 95 percent control, whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 26 or 26A, or title 40 CFR pt. 63, Appendix A, Method 320, as amended, for determining the hydrogen chloride emission rate. The minimum sampling time is one hour. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 26 test run for hydrogen chloride. The average of the hydrogen chloride emission concentration or percent reduction is used to determine compliance. The Permittee must use the formula in Minn. R. 1265, subp 3(A) to calculate the percentage reduction in the potential hydrogen chloride emissions. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(A)]
EQUI 1	17	The Permittee must limit emissions of Mercury <= 50 microgram per dry std cubic meter or 85% removal (short term), whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 29, as amended, for measuring emissions of mercury. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]

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EQUI 1	18	The Permittee must limit emissions of Mercury <= 30 micrograms per dscm or 85% removal (long-term), whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 29, as amended, for measuring emissions of mercury. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]
EQUI 1	19	The Permittee must limit Fuel Usage <= 180 gallons per hour of used oil and used oil sorbents. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 1	20	The Permittee must limit Fuel Usage > 30 percent by weight RDF of the total fuel input as measured on a 24-hour basis. On each day, the Permittee must calculate the fuel feed stream composition as the ratio of the weights of RDF to RDF and all other fuels delivered to the combustion chamber, for the previous calendar day. [Minn. R. 7007.0800, 2(A), Minn. R. 7011.1201, subp. 17]
EQUI 1	21	Daily Operating Record. The Permittee must maintain on-site a daily record for the operation of EQUI 1. The record must contain: - the calendar date; - the hours of operation; - the weight of waste (RDF) combusted (in tons); - the weight of waste requiring disposal at a solid waste land disposal facility, including separated noncombustibles, excess waste, and ash; - the amount and description of industrial solid waste received each day, the generator's name, and the method of handling; - the measurements and determination of emissions averages as required in Minn. R. 7011.1260, subpart 6; - results of performance tests conducted on waste combustor units as required in this permit; - instances of dumpstack use; - the names of persons who have completed initial review or subsequent annual review of the operating manual; - calendar dates whenever any of the pollutants or parameter levels recorded in 40 CFR 62.15305(b) or the opacity level recorded in 40 CFR 62.15305(a)(1) did not meet the emission limits or operating levels specified in 40 CFR pt. 62, subp. JJJ. - the reasons for exceeding any of the applicable emission limits, percent reductions, or operating levels and parameters specified in this permit, or six-minute average COMS measurements that exceed the opacity limit, and a description of the corrective actions the Permittee took, or is taking, to meet the emission limits or operating levels. - reasons for not obtaining the minimum number of hours or collecting the minimum amount of data required under 40 CFR 62.15205 and 62.15280 for sulfur dioxide or operational data for opacity, carbon monoxide, steam flow, load levels of the municipal waste combustion unit, and temperatures of the flue gases at the inlet of the particulate matter control device, and a description of corrective actions the Permittee took, or is taking, to meet the emission limits or operating levels. - the date of the calibration of all signal conversion elements associated with steam flow monitoring as required in Minn. R. 7011.1265, subp. 4. - the time when RDF begins feeding and the unit load of the steam turbine at that time;

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		- the time when the RDF feed to the combustion chamber ceases; - the time when PM control equipment bypass begins; - the time when PM control equipment bypass ceases; - the time when auxiliary fuel use begins; - the time when auxiliary fuel use ceases; - the quantity of used oil and used oil sorbents burned on a gallon per hour basis; - the number of hours per day that the used oil an used oil sorbents are burned; - the source of the used oil; - the weight of wood combusted (in tons); - the ratio of RDF weight to the weight of RDF and all other fuels delivered to the combustion chamber for the previous 24-hour basis; - if the Permittee uses an additive to control Hg or PCDD/PCDF, the reasons for not maintaining the additive system operating parameter as determined in Minn. R. 7011.1272, subp. 2 and the corrective actions taken; and - if the Permittee uses an additive to control Hg or PCDD/PCDF, the reasons for not maintaining the additive mass feed rates as determined in Minn. R. 7011.1272, subp. 1 and the corrective actions taken. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.1285, subp. 2]
EQUI 1	22	During the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no waste combustor maximum demonstrated capacity is applicable. The commissioner shall waive the maximum demonstrated capacity limit for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, provided a written notification is submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project, and the outcome the project is designed to evaluate; (2) how the project conforms with the activities described in this subpart for which the maximum demonstrated capacity limit can be waived; and (3) the length of time the project will take to complete. [Minn. R. 7011.1240, subp. 5]
EQUI 1	23	Exceeding continuously monitored emission limits. If accurate and valid data results collected from continuous monitors for sulfur dioxide, nitrogen oxides, or carbon monoxide data exceed emission limits established in Minn. R. 7011.1225 or in this permit after normal start-up, the Permittee must undertake the following actions: A. The Permittee must report the exceedance(s) to the Commissioner as soon as reasonably possible giving consideration to matters of plant or worker safety, or access to communications. B. The Permittee must commence appropriate repairs or modifications to return EQUI 1 to compliance within 72 hours of the exceedance. C. If EQUI 1 cannot be returned to compliance within 72 hours of the occurrence of the exceedance, the Permittee must shut down EQUI 1. If the modifications to return EQUI 1 to compliance require an amendment of this permit, the Permittee must shut down EQUI 1 within 72 hours of the exceedance. D. When repairs or modifications have been completed, the Permittee must demonstrate to the Commissioner that EQUI 1 is in compliance. The Permittee may start up EQUI 1 after the Permittee has notified the Commissioner in writing of the date the Permittee plans to start up EQUI 1 and the date that compliance testing is scheduled. The Permittee must submit notification at least ten days in advance of the compliance test date.

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EQUI 1	24	The Permittee must calibrate, maintain, and operate a continuous opacity monitoring system when burning solid waste. The monitoring systems must continuously read and record the following outputs: 1) for carbon monoxide at the outlet of EQUI 1; 2) for steam flow or an alternative unit load measurement parameter as described in Minn. R. 7011.1265, subp. 4a, in waste combustors which recover heat with a boiler; 3) for flue gas opacity, at a location after which the flue gas has exited the air pollution control equipment; and 4) for oxygen or carbon dioxide at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored, to report corrected concentrations of regulated pollutants; 5) for nitrogen oxides; and 6) for sulfur dioxide. If the Permittee chooses to determine compliance by monitoring the percent reduction of sulfur dioxide emissions, monitors shall be installed at the inlets and outlets of the air pollution control system. [Minn. R. 7011.1260, subp. 3, Minn. R. 7011.1265, subp. 4]
EQUI 1	25	Steam flow measurement method. The method contained in ASMEPTC 4.1, section 4, incorporate by reference in Minn. R. 7011.1205, must be used for calculating the steam flow required under Minn. R. 7011.1260, subpart 3, item A, subitem (2). The recommendations of Application: Part II of Fluid Meters, Interim Supplement 19.5 on Instruments and Apparatus, chapter 4, incorporated by reference in Minn. R. 7011.1205, must be followed for design, construction, installation, calibration, and use of nozzles and orifices, except that measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed. All signal conversion elements associated with steam flow measurements must be calibrated according to the manufacturer's instructions before each PCDD/PCDF test, and at least once per year. This annual calibration must be recorded in the daily operating record as described in Minn. R. 7011.1285, subpart 2. [Minn. R. 7011.1265, subp. 4]
EQUI 1	26	Operation during performance testing. The Permittee must report operating conditions to the commissioner, including operating parameters of the air pollution control equipment, flue gas temperatures, air flow rates, and pressure drop across the combustion system. [Minn. R. 7011.1265, subp. 6]
EQUI 1	27	Exceeding emission limits. If accurate and valid data results from a performance test demonstrate an exceedance of a standard of performance under Minn. R. 7011.1225 or in the air emission facility permit after normal start-up, the Permittee must undertake the following actions: A. The Permittee must report the exceedance to the commissioner as soon as reasonably possible giving considerations to matters of plant or worker safety, and comply with the applicable reporting provisions of Minn. R. 7007.0800, subp. 6; B. The Permittee must take appropriate steps to return EQUI 1 to compliance and must demonstrate compliance by conducting a performance test within 60 days of the initial report of the exceedance, conduct a performance test and submit the results to the commissioner to demonstrate compliance with this permit; C. If Permittee does not demonstrate compliance within 60 days of the initial report of the exceedance, shut down EQUI 1 on the 61st day; D. EQUI 1 may then be restarted solely to conduct performance testing after Permittee has notified the commissioner in writing of the date on which Permittee plans to restart operation of EQUI 1. Notification must be at least 10 days in advance of the date EQUI 1 will resume operation. The notice must state the date performance testing will be conducted. E. Notwithstanding item D, if shutdown under item C is required, EQUI 1 may be restarted after demonstrating compliance and upon approval by the commissioner. [Minn. R. 7011.1265, subp. 11, Minn. Stat. 116.85, subd. 3]

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EQUI 1	28	If the Permittee is required or chooses to conduct testing for mercury emissions every 90 days, Minn. R. 1265, subp. 3(D)(1) and (2) applies: (1) Procedures to determine compliance with the short-term mercury emission concentration limit are described in Minn. R. 7011.1265, subp. 3(D)(1)(a). If EQUI 1 does not show compliance as determined in Minn. R. 7011.1265, subp. 3(D)(1)(a), compliance must be determined as described in Minn. R. 7011.1265, subp. 3(D)(1)(b) and (c). - EQUI 1 is in compliance with the mercury concentration limit if the arithmetic average of three or more samples is less than or equal to the applicable short-term mercury emission concentration limit. - If the average computed in Minn. R. 7011.1265, subp. 3(D)(1)(a) exceeds the short-term mercury emission concentration limit, the removal efficiency for each run must be computed as provided in Minn. R. 7011.1265, subp. 3(D)(1)(b). - EQUI 1 is in compliance with the short-term mercury emission limit if the arithmetic average of each of the removal efficiencies as computed in Minn. R. 7011.1265, subp. 3(D)(1)(b) is greater than or equal to 85 percent.
		(2) Procedures to determine compliance with the long-term mercury emission concentration limit are described in Minn. R. 7011.1265, subp. 3(D)(2)(a). If EQUI 1 does not show compliance as determined in Minn. R. 7011.1265, subp. 3(D)(2)(a), compliance must be determined as described in Minn. R. 7011.1265, subp. 3(D)(2)(b). - To determine compliance with the mercury emission concentration limit, the arithmetic average of all mercury emission concentrations measured in a compliance test available for the previous calendar year must be used. Compliance with the long-term mercury concentration limit must be determined at each occurrence of mercury emission performance testing. - If the average that was computed in Minn. R. 7011.1265, subp. 3(D)(2)(a) exceeds the long-term mercury emission concentration, the removal efficiency for each run must be computed by the equation in Minn. R. 7011.1265, subp. 3(D)(2)(b)(1) . EQUI 1 is in compliance with the long-term mercury emission limit if the arithmetic average of each of the removal efficiencies is greater than or equal to 85 percent. If the Permittee chooses to conduct testing for mercury emissions every 12 months, Minn. R. 7011.1265, subp.3(D)(3) applies: - EQUI 1 is in compliance with the 12-month mercury emission concentration limit if the arithmetic average of three or more samples is less than the 12-month test interval mercury emission concentration limit. - If the average computed in Minn. R. 7011.1265, subp. 3(D)(3)(a) exceeds the 12-month mercury emission concentration limit, the removal efficiency for each run must be computed by the equation in Minn. R. 7011.1265, subp. 3(D)(1)(b). EQUI 1 is in compliance with the 12-month mercury emission limit if the arithmetic average of the removal efficiencies is greater than 85 percent. [Minn. R. 7011.1265, subp. 3(D)]

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EQUI 1	29	Particulate Matter: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure Particulate Matter. 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. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 5 test run for particulate matter. Particulate matter emissions, expressed in gr/dscf, must be corrected to seven percent oxygen by using the formula in Minn. R. 7011.1265, subp. 2(A). The sum of filterable and organic condensable particulate matter is the concentration of particulate matter as described in part 7017.2060, subpart 3, item B. For each sample run employing Method 5 as provided in Appendix A-3 of Code of Federal Regulations, title 40, part 60, as amended, the emission rate must be determined using: (a) oxygen or carbon dioxide measurements; (b) dry basis F factor; and (c) dry basis emission rate calculation procedures in Code of Federal Regulations, title 40, part 60, Appendix A-7, Method 19, as amended. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 2(A), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270, A, Minn. R. 7017.2020, subp. 1]
EQUI 1	30	Opacity: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure opacity. 40 CFR pt. 60, Appendix A, Method 9, as amended, or other method approved by MPCA in the performance test plan approval, must be used to determine compliance with opacity limits. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 2(B), Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]

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EQUI 1	31	Mercury: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure mercury emissions. If a test shows that an emission limit for mercury from EQUI 1 combusting RDF is exceeded, testing must be conducted every three months thereafter until compliance with the standard is demonstrated. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring mercury emissions. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. To determine the percent reduction of mercury, concurrent sampling for mercury at the inlet and outlet of the air pollution control system must be performed at each occurrence of mercury emissions performance testing. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(D), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 1	32	Muni Waste Combust Organics: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure Muni Waste Combust Organics (dioxins/furans or PCDD/PCDF) emissions. 40 CFR pt. 60, Appendix A, Method 23, as amended, or other method approved by MPCA in the performance test plan approval, must be used to determine compliance with the PCDD/PCDF emission limits. The minimum sample time is four hours per test run. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 23 test run for PCDD/PCDF. The average of the PCDD/PCDF test runs is used to determine compliance. The maximum demonstrated capacity of EQUI 1 must be determined during each subsequent performance test during which compliance with the PCDD/PCDF emission limit in Minn. R. 7011.1225 is achieved. The Permittee must determine and record the four-hour arithmetic average gas stream temperature as measured at the inlet to TREA 5 during each subsequent performance test for PCDD/PCDFs demonstrating compliance with the PCDD/PCDF emission limit in Minn. R. 7011.1225.

SI Id	Sequence	Requirement
		If all PCDD/PCDF performance tests for all units for a two-year period indicate that PCDD/PCDF emissions are less than or equal to 15 ng/dscm corrected to seven percent oxygen from each unit, then the Permittee may choose to test one unit for PCDD/PCDF once annually, but not more than 12 months following the previous performance test. Thereafter, the Permittee may continue to test a different unit for PCDD/PCDF each year, in sequence (e.g. unit 1, unit 2, etc.). If any annual performance test demonstrates a PCDD/PCDF concentration greater than 15 ng/dscm corrected to seven percent oxygen performance tests thereafter shall be conducted annually on all units until all annual performance tests for all units for a two-year period indicate a PCDD/PCDF emission concentration less than or equal to 15 ng/dscm. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. The Permittee will specify what the PCDD/PCDF performance testing schedule is each time a pretest notification is given under the conditions of Minn. R. 7017.2030. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(B), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1265, subp. 7, Minn. R. 7011.1265, subp. 8, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 1	33	Cadmium: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure cadmium emissions. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring cadmium emissions. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run. The average of the cadmium emission concentrations from three test runs or more must be used to determine compliance. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(C), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 1	34	Lead: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure lead emissions. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring lead emissions. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run. The average of the lead emission concentrations from three test runs or more must be used to determine compliance. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(C), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn.
EQUI 1	35	Hydrogen Chloride: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure hydrogen chloride (HCl) emissions. The percentage reduction in the potential hydrogen chloride emissions is computed using the formula in Minn. R. 7011.1265, subp. 3(A). 40 CFR pt. 60, Appendix A, Method 26 or 26A, or 40 CFR pt. 63, Appendix A, Method 320, as amended, or other method approved by MPCA in the performance test plan approval, must be used for determining the hydrogen chloride emission rate. The minimum sampling time is one hour. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 26 test run for hydrogen chloride. The average of the hydrogen chloride emission concentration or percent reduction is used to determine compliance. To determine the percent reduction of HCl, concurrent sampling for HCl at the inlet and outlet of the air pollution control system must be performed at each occurrence of HCl emissions performance testing. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(A), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 2	1	Steam Flow <= 119,765 pounds per hour on a four hour block average. This is 110% of the steam production during the most recent EQUI 2 test (June 19-20, 2024) that demonstrated compliance for PCDD/PCDF emissions. Steam production shall not exceed 119,765 pounds per hour until a new test is conducted to establish a new maximum steam production capacity or as allowed by Minn. R. 7011.1240, subp. 5 as described below. [Minn. R. 7011.1240, subp. 5]

SI Id	Sequence	Requirement
EQUI 2	2	Applicability of Standards. The standards of Minn. R. 7011.1227, Minn. R. 7011.1228, Minn. R. 7011.1229, Minn. R. 7011.1230, Minn. R. 7011.1233, Minn. R. 7011.1240, subp. 2, and Minn. R. 7011.1272, subp. 2, apply at all times when waste is being continuously burned, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction does not exceed three hours. Fugitive emissions standards applicable to ash conveying systems do not apply during maintenance and repair of ash conveying systems. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown are not considered malfunctions. The start-up period commences when the waste combustor begins the continuous burning of solid waste and does not include any warm-up period when the waste combustor is combusting fossil fuel or other solid fuel. Continuous burning is the continuous, semicontinuous, or batch feeding of solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of solid waste solely to provide thermal protection of the grate or hearth during the start-up period when municipal solid waste is not being fed to the grate is not considered to be continuous burning. [Minn. R. 7011.1215, subp. 4]
EQUI 2	3	The Permittee must not cause gases to be emitted from EQUI 2 in excess of the applicable standards of Minn. R. 7011.1227 and 7011.1228. Emissions, except opacity, must be calculated under standard conditions corrected to seven percent oxygen on a dry volume basis. The Permittee may determine compliance with the emission limitations using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. [Minn. R. 7011.1225, subp. 1(A)]
EQUI 2	4	The Permittee must limit combustion ash from an ash conveying system, or buildings or enclosures of ash conveying systems, including conveyor transfer points, Visible Emissions <= 5 percent of the observation period (i.e. 9 minutes per three-hour period) (hourly observation period using three 1-hour observation periods), as determined by 40 CFR pt. 60, Appendix A, Method 22, as amended. This limit does not apply to visible emissions discharged inside buildings or enclosures of ash conveying systems. [Minn. R. 7011.1225, subp. 1(B)]
EQUI 2	5	The Permittee must limit emissions of Front-half Particulate Matter <= 0.011 grains per dry standard cubic foot. This limit is applied in accordance with the "Applicability of Standards" stated in this permit. [Minn. R. 7011.1227]
EQUI 2	6	The Permittee must limit emissions of Particulate Matter <= 0.020 grains per dry standard cubic foot. This limit is applied in accordance with the "Applicability of Standards" stated in this permit. [Minn. R. 7011.1227]
EQUI 2	7	The Permittee must limit emissions of Particulate Matter <= 25 milligrams per dscm, corrected to 7 percent oxygen. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 2	8	The Permittee must limit Opacity <= 10 percent opacity 6-minute average, calculated using 36 or more data points equally spaced over a six-minute period. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp.4(F)]
EQUI 2	9	The Permittee must limit emissions of Sulfur Dioxide <= 29 parts per million or 75 percent control, whichever is less stringent. The Permittee must measure emissions using the geometric average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time shall be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp. 4(D)]
EQUI 2	10	The Permittee must limit emissions of Carbon Monoxide <= 200 parts per million using a daily 24-hour arithmetic average measured between 12 midnight and the following midnight. The four-hour and 24-hour average must be calculated from one-hour arithmetic averages. At least four points equally spaced in time shall be used to calculate each one-hour average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1227, Minn. R. 7011.1260, subp. 4(C)]

SI Id	Sequence	Requirement
EQUI 2	11	The Permittee must limit emissions of Nitrogen Oxides <= 250 parts per million using the arithmetic average of the one-hour arithmetic average emission concentration during each 24-hour daily period measured from midnight to midnight. At least four data points equally spaced in time must be used to calculate each one-hour arithmetic average. During periods of calibration, quality assurance audits, and routine maintenance, only two data points during the hour, at least 15 minutes apart, are required to calculate an hourly average. Each one-hour average must be corrected to seven percent oxygen on an hourly basis using the one-hour arithmetic average of the oxygen or carbon dioxide continuous emissions monitoring system. [Minn. R. 7011.1228, Minn. R. 7011.1260, subp. 4(E)]
EQUI 2	12	The Permittee must limit emissions of Nitrogen Oxides <= 230 parts per million 24-hour block average basis when averaging nitrogen oxide emissions across the waste combustor facility. If emissions averaging is used, the Permittee shall average nitrogen oxide emissions according to the procedures in 40 CFR Section 60.33b(d)(1). Prior to using emissions averaging to comply with this limit, the Permittee must identify that they plan to use emissions averaging in the annual report required in Minn. R. 7011.1285, subp. 4. Partial year averaging is allowed upon written approval of the commissioner. [Minn. R. 7011.1228, Minn. R. 7011.1260, subp. 4(E)]
EQUI 2	13	The Permittee must limit emissions of Lead <= 400 microgram per dry std cubic meter, measured using 40 CFR pt. 60, Appendix A, Method 29, as amended. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for lead. The average of the lead emission concentrations from three test runs or more must be used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]
EQUI 2	14	The Permittee must limit emissions of Muni Waste Combust Organics <= 30 nanogram per dry std cubic meter, measured as total PCDD/PCDF. The Permittee must use 40 CFR pt. 60, Appendix A, Method 23, as amended, to determine compliance with the PCDD/PCDF emission limits. The minimum sample time is four hours per test run. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 23 test run for PCDD/PCDF. The average of the PCDD/PCDF test runs is used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(B)]
EQUI 2	15	The Permittee must limit emissions of Cadmium <= 35 microgram per dry std cubic meter, measured using 40 CFR pt. 60, Appendix A, Method 29, as amended. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for cadmium. The average of the cadmium emission concentrations from three test runs or more must be used to determine compliance. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(C)]
EQUI 2	16	The Permittee must limit emissions of Hydrogen Chloride <= 29 parts per million or 95 percent control, whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 26 or 26A, or title 40 CFR pt. 63, Appendix A, Method 320, as amended, for determining the hydrogen chloride emission rate. The minimum sampling time is one hour. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 26 test run for hydrogen chloride. The average of the hydrogen chloride emission concentration or percent reduction is used to determine compliance. The Permittee must use the formula in Minn. R. 1265, subp 3(A) to calculate the percentage reduction in the potential hydrogen chloride emissions. [Minn. R. 7011.1227, Minn. R. 7011.1265, subp. 3(A)]
EQUI 2	17	The Permittee must limit emissions of Mercury <= 30 micrograms per dscm or 85% removal (long-term), whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 29, as amended, for measuring emissions of mercury. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]
EQUI 2	18	The Permittee must limit emissions of Mercury <= 50 microgram per dry std cubic meter or 85% removal (short term), whichever is less stringent. The Permittee must use 40 CFR pt. 60, Appendix A, Method 29, as amended, for measuring emissions of mercury. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. [Minn. R. 7011.1227, Minn. R. 7011.1265, subps. 3(C)-(D)]

SI Id	Sequence	Requirement
EQUI 2	19	The Permittee must limit Fuel Usage > 30 percent by weight RDF of the total fuel input as measured on a 24-hour basis. On each day, the Permittee must calculate the fuel feed stream composition as the ratio of the weights of RDF to RDF and all other fuels delivered to the combustion chamber, for the previous calendar day. [Minn. R. 7007.0800, 2(A), Minn. R. 7011.1201, subp. 17]
EQUI 2	20	The Permittee must limit Fuel Usage <= 180 gallons per hour of used oil and used oil sorbents. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 2	21	Daily Operating Record. The Permittee must maintain on-site a daily record for the operation of EQUI 2. The record must contain: - the calendar date; - the hours of operation; - the weight of waste (RDF) combusted (in tons); - the weight of waste requiring disposal at a solid waste land disposal facility, including separated noncombustibles, excess waste, and ash; - the amount and description of industrial solid waste received each day, the generator's name, and the method of handling; - the measurements and determination of emissions averages as required in Minn. R. 7011.1260, subpart 6; - results of performance tests conducted on waste combustor units as required in this permit; - instances of dumpstack use; - the names of persons who have completed initial review or subsequent annual review of the operating manual; - calendar dates whenever any of the pollutants or parameter levels recorded in 40 CFR 62.15305(b) or the opacity level recorded in 40 CFR 62.15305(a)(1) did not meet the emission limits or operating levels specified in 40 CFR pt. 62, subp. JJJ. - the reasons for exceeding any of the applicable emission limits, percent reductions, or operating levels and parameters specified in this permit, or six-minute average COMS measurements that exceed the opacity limit, and a description of the corrective actions the Permittee took, or is taking, to meet the emission limits or operating levels. - reasons for not obtaining the minimum number of hours or collecting the minimum amount of data required under 40 CFR 62.15205 and 62.15280 for sulfur dioxide or operational data for opacity, carbon monoxide, steam flow, load levels of the municipal waste combustion unit, and temperatures of the flue gases at the inlet of the particulate matter control device, and a description of corrective actions the Permittee took, or is taking, to meet the emission limits or operating levels.
		- the date of the calibration of all signal conversion elements associated with steam flow monitoring as required in Minn. R. 7011.1265, subp. 4. - the time when RDF begins feeding and the unit load of the steam turbine at that time; - the time when the RDF feed to the combustion chamber ceases; - the time when PM control equipment bypass begins; - the time when PM control equipment bypass ceases; - the time when auxiliary fuel use begins; - the time when auxiliary fuel use ceases; - the quantity of used oil and used oil sorbents burned on a gallon per hour basis; - the number of hours per day that the used oil and used oil sorbents are burned; - the source of the used oil; - the weight of wood combusted (in tons); - the ratio of RDF weight to the weight of RDF and all other fuels delivered to the combustion chamber for the previous 24-hour basis; - if the Permittee uses an additive to control Hg or PCDD/PCDF, the reasons for not maintaining the additive system operating parameter as determined in Minn. R. 7011.1272, subp. 2 and the corrective actions taken; and - if the Permittee uses an additive to control Hg or PCDD/PCDF, the reasons for not maintaining the additive mass feed rates as determined in Minn. R. 7011.1272, subp. 1 and the corrective actions taken. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.1285, subp. 2]

SI Id	Sequence	Requirement
EQUI 2	22	Exceeding of continuously monitored emission limits. If accurate and valid data results collected from continuous monitors for sulfur dioxide, nitrogen oxides, or carbon monoxide data exceed emission limits established in Minn. R. 7011.1225 or in this permit after normal start-up, the Permittee must undertake the following actions: A. The Permittee must report the exceedance(s) to the Commissioner as soon as reasonably possible giving consideration to matters of plant or worker safety, or access to communications. B. The Permittee must commence appropriate repairs or modifications to return EQUI 2 to compliance within 72 hours of the exceedance. C. If EQUI 2 cannot be returned to compliance within 72 hours of the occurrence of the exceedance, the Permittee must shut down EQUI 2. If the modifications to return EQUI 2 to compliance require an amendment of this permit, the Permittee must shut down EQUI 2 within 72 hours of the exceedance. D. When repairs or modifications have been completed, the Permittee must demonstrate to the Commissioner that EQUI 2 is in compliance. The Permittee may start up EQUI 2 after the Permittee has notified the Commissioner in writing of the date the Permittee plans to start up EQUI 2 and the date that compliance testing is scheduled. The Permittee must submit notification at least ten days in advance of the compliance test date.
EQUI 2	23	The Permittee must calibrate, maintain, and operate a continuous opacity monitoring system when burning solid waste. The monitoring systems must continuously read and record the following outputs: 1) for carbon monoxide at the outlet of EQUI 2; 2) for steam flow or an alternative unit load measurement parameter as described in Minn. R. 7011.1265, subp. 4a, in waste combustors which recover heat with a boiler; 3) for flue gas opacity, at a location after which the flue gas has exited the air pollution control equipment; and 4) for oxygen or carbon dioxide at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored, to report corrected concentrations of regulated pollutants; 5) for nitrogen oxides; and 6) for sulfur dioxide. If the Permittee chooses to determine compliance by monitoring the percent reduction of sulfur dioxide emissions, monitors shall be installed at the inlets and outlets of the air pollution control system. [Minn. R. 7011.1260, subp. 3, Minn. R. 7011.1265, subp. 4]
EQUI 2	24	Steam flow measurement method. The method contained in ASMEPTC 4.1, section 4, incorporate by reference in Minn. R. 7011.1205, must be used for calculating the steam flow required under Minn. R. 7011.1260, subpart 3, item A, subitem (2). The recommendations of Application: Part II of Fluid Meters, Interim Supplement 19.5 on Instruments and Apparatus, chapter 4, incorporated by reference in Minn. R. 7011.1205, must be followed for design, construction, installation, calibration, and use of nozzles and orifices, except that measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed. All signal conversion elements associated with steam flow measurements must be calibrated according to the manufacturer's instructions before each PCDD/PCDF test, and at least once per year. This annual calibration must be recorded in the daily operating record as described in Minn. R. 7011.1285, subpart 2. [Minn. R. 7011.1265, subp. 4]
EQUI 2	25	Operation during performance testing. The Permittee must report operating conditions to the commissioner, including operating parameters of the air pollution control equipment, flue gas temperatures, air flow rates, and pressure drop across the combustion system. [Minn. R. 7011.1265, subp. 6]

SI Id	Sequence	Requirement
EQUI 2	26	During the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no waste combustor maximum demonstrated capacity is applicable. The commissioner shall waive the maximum demonstrated capacity limit for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, provided a written notification is submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project, and the outcome the project is designed to evaluate; (2) how the project conforms with the activities described in this subpart for which the maximum demonstrated capacity limit can be waived; and (3) the length of time the project will take to complete. [Minn. R. 7011.1240, subp. 5]
EQUI 2	27	Exceeding emission limits. If accurate and valid data results from a performance test demonstrate an exceedance of a standard of performance under Minn. R. 7011.1225 or in the air emission facility permit after normal start-up, the Permittee must undertake the following actions: A. The Permittee must report the exceedance to the commissioner as soon as reasonably possible giving considerations to matters of plant or worker safety, and comply with the applicable reporting provisions of Minn. R. 7007.0800, subp. 6; B. The Permittee must take appropriate steps to return EQUI 2 to compliance and must demonstrate compliance by conducting a performance test within 60 days of the initial report of the exceedance, conduct a performance test and submit the results to the commissioner to demonstrate compliance with this permit; C. If Permittee does not demonstrate compliance within 60 days of the initial report of the exceedance, shut down EQUI 2 on the 61st day; D. EQUI 2 may then be restarted solely to conduct performance testing after Permittee has notified the commissioner in writing of the date on which Permittee plans to restart operation of EQUI 2. Notification must be at least 10 days in advance of the date EQUI 2 will resume operation. The notice must state the date performance testing will be conducted. E. Notwithstanding item D, if shutdown under item C is required, EQUI 2 may be restarted after demonstrating compliance and upon approval by the commissioner. [Minn. R. 7011.1265, subp. 11, Minn. Stat. 116.85, subd. 3]
EQUI 2	28	If the Permittee is required or chooses to conduct testing for mercury emissions every 90 days, Minn. R. 1265, subp. 3(D)(1) and (2) applies: (1) Procedures to determine compliance with the short-term mercury emission concentration limit are described in Minn. R. 7011.1265, subp. 3(D)(1)(a). If EQUI 2 does not show compliance as determined in Minn. R. 7011.1265, subp. 3(D)(1)(a), compliance must be determined as described in Minn. R. 7011.1265, subp. 3(D)(1)(b) and (c). - EQUI 2 is in compliance with the mercury concentration limit if the arithmetic average of three or more samples is less than or equal to the applicable short-term mercury emission concentration limit. - If the average computed in Minn. R. 7011.1265, subp. 3(D)(1)(a) exceeds the short-term mercury emission concentration limit, the removal efficiency for each run must be computed as provided in Minn. R. 7011.1265, subp. 3(D)(1)(b). - EQUI 2 is in compliance with the short-term mercury emission limit if the arithmetic average of each of the removal efficiencies as computed in Minn. R. 7011.1265, subp. 3(D)(1)(b) is greater than or equal to 85 percent.

SI Id	Sequence	Requirement
		(2) Procedures to determine compliance with the long-term mercury emission concentration limit are described in Minn. R. 7011.1265, subp. 3(D)(2)(a). If EQUI 2 does not show compliance as determined in Minn. R. 7011.1265, subp. 3(D)(2)(a), compliance must be determined as described in Minn. R. 7011.1265, subp. 3(D)(2)(b). - To determine compliance with the mercury emission concentration limit, the arithmetic average of all mercury emission concentrations measured in a compliance test available for the previous calendar year must be used. Compliance with the long-term mercury concentration limit must be determined at each occurrence of mercury emission performance testing. - If the average that was computed in Minn. R. 7011.1265, subp. 3(D)(2)(a) exceeds the long-term mercury emission concentration, the removal efficiency for each run must be computed by the equation in Minn. R. 7011.1265, subp. 3(D)(2)(b)(1) . EQUI 2 is in compliance with the long-term mercury emission limit if the arithmetic average of each of the removal efficiencies is greater than or equal to 85 percent. If the Permittee chooses to conduct testing for mercury emissions every 12 months, Minn. R. 7011.1265, subp.3(D)(3) applies: - EQUI 2 is in compliance with the 12-month mercury emission concentration limit if the arithmetic average of three or more samples is less than the 12-month test interval mercury emission concentration limit. - If the average computed in Minn. R. 7011.1265, subp. 3(D)(3)(a) exceeds the 12-month mercury emission concentration limit, the removal efficiency for each run must be computed by the equation in Minn. R. 7011.1265, subp. 3(D)(1)(b). EQUI 2 is in compliance with the 12-month mercury emission limit if the arithmetic average of the removal efficiencies is greater than 85 percent. [Minn. R. 7011.1265, subp. 3(D)]
EQUI 2	29	Particulate Matter: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure Particulate Matter. 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. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 5 test run for particulate matter. Particulate matter emissions, expressed in gr/dscf, must be corrected to seven percent oxygen by using the formula in Minn. R. 7011.1265, subp. 2(A). The sum of filterable and organic condensable particulate matter is the concentration of particulate matter as described in part 7017.2060, subpart 3, item B. For each sample run employing Method 5 as provided in Appendix A-3 of Code of Federal Regulations, title 40, part 60, as amended, the emission rate must be determined using: (a) oxygen or carbon dioxide measurements; (b) dry basis F factor; and (c) dry basis emission rate calculation procedures in Code of Federal Regulations, title 40, part 60, Appendix A-7, Method 19, as amended. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 2(A), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 2	30	Opacity: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure opacity. 40 CFR pt. 60, Appendix A, Method 9, as amended, or other method approved by MPCA in the performance test plan approval, must be used to determine compliance with opacity limits. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 2(B), Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 2	31	Mercury: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure mercury emissions. If a test shows that an emission limit for mercury from EQUI 2 combusting RDF is exceeded, testing must be conducted every three months thereafter until compliance with the standard is demonstrated. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring mercury emissions. To determine the mercury concentration, the arithmetic average of three or more samples at the outlet of the air pollution control device must be used. The minimum sample volume is 1.7 dscm. The maximum sample run time is two hours. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run for mercury. To determine the percent reduction of mercury, concurrent sampling for mercury at the inlet and outlet of the air pollution control system must be performed at each occurrence of mercury emissions performance testing. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(D), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 2	32	Muni Waste Combust Organics: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure Muni Waste Combust Organics (dioxins/furans or PCDD/PCDF) emissions. 40 CFR pt. 60, Appendix A, Method 23, as amended, or other method approved by MPCA in the performance test plan approval, must be used to determine compliance with the PCDD/PCDF emission limits. The minimum sample time is four hours per test run. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 23 test run for PCDD/PCDF. The average of the PCDD/PCDF test runs is used to determine compliance. The maximum demonstrated capacity of EQUI 2 must be determined during each subsequent performance test during which compliance with the PCDD/PCDF emission limit in Minn. R. 7011.1225 is achieved. The Permittee must determine and record the four-hour arithmetic average gas stream temperature as measured at the inlet to TREA 6 during each subsequent performance test for PCDD/PCDFs demonstrating compliance with the PCDD/PCDF emission limit in Minn. R. 7011.1225.
		If all PCDD/PCDF performance tests for all units for a two-year period indicate that PCDD/PCDF emissions are less than or equal to 15 ng/dscm corrected to seven percent oxygen from each unit, then the Permittee may choose to test one unit for PCDD/PCDF once annually, but not more than 12 months following the previous performance test. Thereafter, the Permittee may continue to test a different unit for PCDD/PCDF each year, in sequence (e.g. unit 1, unit 2, etc.). If any annual performance test demonstrates a PCDD/PCDF concentration greater than 15 ng/dscm corrected to seven percent oxygen performance tests thereafter shall be conducted annually on all units until all annual performance tests for all units for a two-year period indicate a PCDD/PCDF emission concentration less than or equal to 15 ng/dscm. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. The Permittee will specify what the PCDD/PCDF performance testing schedule is each time a pretest notification is given under the conditions of Minn. R. 7017.2030. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(B), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1265, subp. 7, Minn. R. 7011.1265, subp. 8, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 2	33	Cadmium: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure cadmium emissions. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring cadmium emissions. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run. The average of the cadmium emission concentrations from three test runs or more must be used to determine compliance. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(C), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 2	34	Lead: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure lead emissions. 40 CFR pt. 60, Appendix A, Method 29, as amended, or other method approved by MPCA in the performance test plan approval, must be used for measuring lead emissions. The minimum sample volume is 1.7 dscm. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 29 test run. The average of the lead emission concentrations from three test runs or more must be used to determine compliance. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(C), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn.

SI Id	Sequence	Requirement
EQUI 2	35	Hydrogen Chloride: The Permittee must conduct a performance test: due 4/30/2026 and every 12 months thereafter to measure hydrogen chloride (HCl) emissions. The percentage reduction in the potential hydrogen chloride emissions is computed using the formula in Minn. R. 7011.1265, subp. 3(A). 40 CFR pt. 60, Appendix A, Method 26 or 26A, or 40 CFR pt. 63, Appendix A, Method 320, as amended, or other method approved by MPCA in the performance test plan approval, must be used for determining the hydrogen chloride emission rate. The minimum sampling time is one hour. An oxygen or carbon dioxide measurement must be obtained simultaneously with each Method 26 test run for hydrogen chloride. The average of the hydrogen chloride emission concentration or percent reduction is used to determine compliance. To determine the percent reduction of HCl, concurrent sampling for HCl at the inlet and outlet of the air pollution control system must be performed at each occurrence of HCl emissions performance testing. 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. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7011.1265, subp. 1, Minn. R. 7011.1265, subp. 3(A), Minn. R. 7011.1265, subp. 5, Minn. R. 7011.1270(A), Minn. R. 7017.2020, subp. 1]
EQUI 21	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 21	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 21	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 21	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 22	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 22	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 22	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 22	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 27	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 27	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 27	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 27	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 28	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]

SI Id	Sequence	Requirement
EQUI 28	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 28	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 28	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 29	2850	The Permittee must conduct quarterly COMS performance audits: Due once per QA operating quarter (calendar quarter in which the unit operates at least 168 hours) after COMS certification test. Quarterly performance audits will include: optical alignment, calibration error, and zero compensation according to Procedure 3 of 40 CFR Pt. 60, Appendix F, section 10.0(2). Sources that achieve quality assured data for four consecutive quarters may reduce their auditing frequency to semi-annual. If a performance audit is failed, the source must resume quarterly testing for that audit requirement until it again demonstrates successful performance over four consecutive quarters. [40 CFR pt. 60, Appendix F, Minn. R. 7017.1010, subp. 1(C)]
EQUI 29	2860	The Permittee must perform annual zero alignment as described in Procedure 3, section 10.3 of 40 CFR Pt. 60, Appendix F. [40 CFR pt. 60, Appendix F, Minn. R. 7017.1010, subp. 1(C)]
EQUI 36	3	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 36	3680	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 36	3690	Visible Emissions: The Permittee must check for visible emissions during daylight hours at least once each day of operation when the silo is being filled with lime. In the event that the silo is filled during non-daylight hours, lighting will be utilized during the inspection. If visible emissions are observed, the Permittee shall determine the cause and take corrective actions as soon as possible. The Permittee must record each visible emission check containing the following information: 1) Printed name of observer; 2) Signature of observer; 3) Date and time of observation; 4) State if visible emissions were observed or were not observed; 5) Description of investigation into the cause of visible emissions and corrective actions completed for each observation that visible emissions were observed; 6) Weather conditions (temperature, cloud cover, wind, precipitation); 7) Indicate if the plume was limited by visible moisture within the plume; and 8) Emission unit (EQUI 36), control equipment (TREA 7) and Stack/Vent (STRU 12) ID number(s). [Minn. R. 7007.0800, subp. 2(A)]
EQUI 37	3	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 37	3680	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 37	3690	Visible Emissions: The Permittee must check for visible emissions during daylight hours at least once each day of operation when the silo is being filled with lime. In the event that the silo is filled during non-daylight hours, lighting will be utilized during the inspection. If visible emissions are observed, the Permittee shall determine the cause and take corrective actions as soon as possible. The Permittee must record each visible emission check containing the following information: 1) Printed name of observer; 2) Signature of observer; 3) Date and time of observation; 4) State if visible emissions were observed or were not observed; 5) Description of investigation into the cause of visible emissions and corrective actions completed for each observation that visible emissions were observed; 6) Weather conditions (temperature, cloud cover, wind, precipitation); 7) Indicate if the plume was limited by visible moisture within the plume; and 8) Emission unit (EQUI 37), control equipment (TREA 8) and Stack/Vent (STRU 13) ID number(s). [Minn. R. 7007.0800, subp. 2(A)]
EQUI 39	1	Filterable Particulate Matter <= 0.6 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. 7011.0510, subp. 1]
EQUI 39	2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
EQUI 39	3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 39	4	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 39	5	The Permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545 and in 40 CFR pt. DDDDD, subp. A. Some of the notifications must be submitted before the Permittee is required to comply with the emission limits and work practice standards in 40 CFR pt. 63, subp. DDDDD. [40 CFR 63.7495(d), Minn. R. 7011.7050]
EQUI 39	6	The Permittee must meet each work practice standard in 40 CFR pt. 63, subp. DDDDD, Table 3 that applies, for each boiler or process heater at the source, except as provided under 40 CFR 63.7522. The Permittee must meet these requirements at all times the affected unit is operating. [40 CFR 63.7500(a), 40 CFR 63.7500(a)(1), 40 CFR 63.7505(a), Minn. R. 7011.7050]
EQUI 39	7	At all times, the Permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3), Minn. R. 7011.7050]

SI Id	Sequence	Requirement
EQUI 39	8	The Permittee must conduct a tune-up of EQUI 41 every 5 years as specified in 40 CFR Section 63.7540(a)(10)(i) through (vi) (listed below) to demonstrate continuous compliance. The Permittee may delay the burner inspection specified in 40 CFR Section 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the Permittee must inspect each burner at least once every 72 months. (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment; (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available; (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection; (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject;
		(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR Section 63.7540(a)(10)(vi)(A) through (C), (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; (B) A description of any corrective actions taken as a part of the tune-up; and (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7500(e), 40 CFR 63.7540(a)(10)(i)-(vi), 40 CFR 63.7540(a)(12), 40
EQUI 39	9	The Permittee must conduct a 5-year performance tune-up according to 40 CFR Section 63.7540(a)(12). Each 5-year tune-up specified in 40 CFR Section 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. [40 CFR 63.7515(d), Minn. R. 7011.7050]
EQUI 39	10	If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13), Minn. R. 7011.7050]
EQUI 39	11	The Permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified. [40 CFR 63.7545(a), Minn. R. 7011.7050]

SI Id	Sequence	Requirement
EQUI 39	12	If the Permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR pt. 63, 40 CFR pt. 60, 40 CFR pt. 61, or 40 CFR pt.65, or another gas 1 fuel to fire EQUI 41 during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the Permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information specified in 40 CFR 63.7545(f)(1) through (5) (listed below). (1) Company name and address. (2) Identification of the affected unit. (3) Reason the Permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began. (4) Type of alternative fuel that the Permittee intends to use. (5) Dates when the alternative fuel use is expected to begin and end. [40 CFR 63.7545(f), Minn. R. 7011.7050]
EQUI 39	13	If the Permittee switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the Permittee must provide notice of the date upon which the Permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify: (1) The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. (2) The currently applicable subcategory under 40 CFR pt. 63, subp. DDDDD. (3) The date upon which the fuel switch or physical change occurred. [40 CFR 63.7545(h), Minn. R. 7011.7050]
EQUI 39	3620	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2026, and every 60 months thereafter. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must submit a compliance report with the information in 40 CFR Section 63.7550(c)(5)(i) through (iii), (xiv) and (xvii) (listed below). (i) Company and Facility name and address. (ii) Process unit information, emissions limitations, and operating parameter limitations. (iii) Date of report and beginning and ending dates of the reporting period. (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to 40 CFR Section 63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii), 40 CFR 63.subp. DDDDD, Table 9, Minn. R. 7011.7050]
EQUI 39	3632	The Permittee must submit all reports required by 40 CFR pt. 63, subp. DDDDD, Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee must use the appropriate electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD. Instead of using the electronic report in CEDRI for 40 CFR pt. 63, subp. DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to 40 CFR pt. 63, subp. DDDDD is not available in CEDRI at the time that the report is due, the Permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The Permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3), Minn. R. 7011.7050]

SI Id	Sequence	Requirement
EQUI 39	3637	The Permittee must keep records of copies of each notification and report that the Permittee submitted to comply with 40 CFR pt. 63, subp. DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the Permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1), Minn. R. 7011.7050]
EQUI 39	12250	If the Permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR pt. 63, other gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR pt. 63 or 40 CFR pt. 60, 61, or 65, the Permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. [40 CFR 63.7555(h), Minn. R. 7011.7050]
EQUI 39	12251	The Permittee must keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years. [40 CFR 63.7560, Minn. R. 7011.7050]
EQUI 39	12252	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); 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(b)(7); 40 CFR 63.6(c); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3); 40 CFR 63.6(g) (except 40 CFR 63.7555(d)(3) specifies the procedure for application and approval of an alternative timeframe with the PM controls requirement in the startup work practice); 40 CFR 63.6(i);

SI Id	Sequence	Requirement
		40 CFR 63.6(j); 40 CFR 63.7(a); 40 CFR 63.7(b); 40 CFR 63.7(c); 40 CFR 63.7(d); 40 CFR 63.7(e)(2)-(e)(9); 40 CFR 63.7(f); 40 CFR 63.7(g); 40 CFR 63.7(h); 40 CFR 63.8(a); 40 CFR 63.8(b); 40 CFR 63.8(c)(1); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2)-(c)(9); 40 CFR 63.8(d)(1); 40 CFR 63.8(d)(2); 40 CFR 63.8(d)(3) (except for the last sentence, which refers to a startup, shutdown, and malfunction plan; startup, shutdown, and malfunction plans are not required); 40 CFR 63.8(e); 40 CFR 63.8(f); 40 CFR 63.8(g);
		40 CFR 63.9; 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(i); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi); 40 CFR 63.10(b)(2)(vii)-(xiv); 40 CFR 63.10(c)(1)-(c)(9); 40 CFR 63.10(c)(12)-(c)(13); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15; and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix B. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR 63.7565, 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. 7011.7050, Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
EQUI 40	1	The Permittee must limit combustion ash from an ash conveying system, or buildings or enclosures of ash conveying systems, including conveyor transfer points, Visible Emissions <= 5 percent of the observation period (i.e. 9 minutes per three-hour period) (hourly observation period using three 1-hour observation periods), as determined by 40 CFR pt. 60, Appendix A, Method 22, as amended. This limit does not apply to visible emissions discharged inside buildings or enclosures of ash conveying systems. [Minn. R. 7011.1225, subp. 1(B)]
EQUI 41	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]

SI Id	Sequence	Requirement
EQUI 41	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 41	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 41	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 42	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 42	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 42	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 42	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 43	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 43	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 43	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 43	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 44	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 44	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 44	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 44	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 45	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 45	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 45	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 45	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 46	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 46	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 46	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 46	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 47	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]

SI Id	Sequence	Requirement
EQUI 47	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 47	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 47	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 48	2200	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
EQUI 48	2220	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
EQUI 48	2460	The Permittee must conduct a cylinder gas audit: Due by the end of each three of four calendar quarters but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. [40 CFR pt. 60, Appendix F, 5.1.2, Minn. R. 7017.1010, subp. 1(C)]
EQUI 48	2470	The Permittee must conduct a relative accuracy test audit: Due one of each four calendar quarters. [40 CFR pt. 60, Appendix F, 5.1.1, Minn. R. 7017.1010, subp. 1(C)]
EQUI 49	2850	The Permittee must conduct quarterly COMS performance audits: Due once per QA operating quarter (calendar quarter in which the unit operates at least 168 hours) after COMS certification test. Quarterly performance audits will include: optical alignment, calibration error, and zero compensation according to Procedure 3 of 40 CFR Pt. 60, Appendix F, section 10.0(2). Sources that achieve quality assured data for four consecutive quarters may reduce their auditing frequency to semi-annual. If a performance audit is failed, the source must resume quarterly testing for that audit requirement until it again demonstrates successful performance over four consecutive quarters. [40 CFR pt. 60, Appendix F, Minn. R. 7017.1010, subp. 1(C)]
EQUI 49	2860	The Permittee must perform annual zero alignment as described in Procedure 3, section 10.3 of 40 CFR Pt. 60, Appendix F. [40 CFR pt. 60, Appendix F, Minn. R. 7017.1010, subp. 1(C)]
TREA 1	2	The Permittee must maintain the lime feed rate at >= 15.0 percent, 8-hour block average (as determined during the April 30, 2025 hydrogen chloride (HCl) performance test). The Permittee must keep records of the 8-hour block average feed rate at all times EQUI 1 is in operation. The Permittee must use the same or similar reagent as used during the most recent compliant HCl performance test. Notwithstanding the previous sentence, upon the Commissioner's written notification that EQUI 1 has demonstrated compliance under the conditions of a HCl performance test, the Permittee must maintain the lime feed rate determined during the most recent compliant HCl performance test. [Minn. R. 7007.0800, subp. 2(A)]
TREA 1	3	The Permittee shall vent emissions from EQUI 1 to TREA 1 whenever EQUI 1 operates, and operate and maintain TREA 1 at all times that any emissions are vented to TREA 1. The Permittee shall document periods of non-operation of the control equipment TREA 1 whenever EQUI 1 is operating. [Minn. R. 7007.0800, subp. 2(A)]
TREA 1	4	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the lime feed rate, averaged over an 8-hour block, is less than the average feed rate as determined during the most recent compliant HCl performance test. - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [40 CFR 64.7(d), Minn. R. 7017.0200]

SI Id	Sequence	Requirement
TREA 1	5	The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification; D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts; E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7017.0200]
TREA 1	6	If the Permittee replaces TREA 1, the replacement control must comply with all requirements of TREA 1. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 1	7	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing lime feed rate range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
TREA 1	8	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
TREA 1	9	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 1	10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording lime feed rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored gas scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
TREA 2	1	The Permittee must maintain the lime feed rate as >= 14.9 percent, 8-hour block average (as determined during the April 30, 2025 hydrogen chloride (HCl) performance test). The Permittee must keep records of the 8-hour block average feed rate at all times EQUI 2 is in operation. The Permittee must use the same or similar reagent as used during the most recent compliant HCl performance test. Notwithstanding the previous sentence, upon the Commissioner's written notification that EQUI 2 has demonstrated compliance under the conditions of a HCl performance test, the Permittee must maintain the lime feed rate determined during the most recent compliant HCl performance test. [Minn. R. 7007.0800, subp. 2(A)]

SI Id	Sequence	Requirement
TREA 2	2	The Permittee shall vent emissions from EQUI 2 to TREA 2 whenever EQUI 2 operates, and operate and maintain TREA 2 at all times that any emissions are vented to TREA 2. The Permittee shall document periods of non-operation of the control equipment TREA 2 whenever EQUI 2 is operating. [Minn. R. 7007.0800, subp. 2(A)]
TREA 2	3	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the lime feed rate, averaged over an 8-hour block, is less than the average feed rate as determined during the most recent compliant HCl performance test. - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [40 CFR 64.7(d), Minn. R. 7017.0200]
TREA 2	4	The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification; D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts; E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7017.0200]
TREA 2	5	If the Permittee replaces TREA 2, the replacement control must comply with all requirements of TREA 2. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 2	6	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing lime feed rate range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
TREA 2	7	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
TREA 2	8	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]

SI Id	Sequence	Requirement
TREA 2	9	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording lime feed rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored gas scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
TREA 5	1	The Permittee must limit the inlet gas stream Temperature <= 310 degrees Fahrenheit 4-hour block average (as determined during the April 23-24, 2025 polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF) performance test). Notwithstanding the previous sentence, upon the Commissioner's written notification that EQUI 1 has demonstrated compliance under the conditions of a PCDD/PCDF performance test, the Permittee must maintain the inlet gas stream to TREA 5 on EQUI 1 as measured by Minn. R. 7011.1260, subp. 4(A) to have a temperature of no greater than 30 degrees Fahrenheit above the maximum demonstrated temperature (4-hour block average) of the particulate matter control device. The maximum demonstrated temperature of the particulate matter control device means the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent performance test for dioxins/furans emissions (PCDD/PCDF) that demonstrates compliance except as allowed in following items: A. During the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no particulate matter control device temperature limitations are applicable. B. The Permittee must submit written notification to the Commissioner 30 days prior to evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions to waive the particulate matter control device temperature limits. The notification must include the following information: 1) a description of the proposed project, and the outcome the project is designed to evaluate; 2) how the project conforms with the activities described in Minn. R. 7011.1265 for which the temperature limit can be waived; and 3) the length of time the project will take to complete; the project must be accomplished within 14 days. [Minn. R. 7011.1240, subp. 2]
TREA 5	2	The Permittee must calibrate, maintain, and operate temperature monitors that continuously read and record the temperatures of the flue gas at the inlet of TREA 5. [Minn. R. 7011.1260, subp. 2]
TREA 5	16440	The Permittee must vent emissions from EQUI 1 to TREA 5 whenever EQUI 1 operates, and operate and maintain TREA 5 at all times that any emissions are vented to TREA 5. The Permittee must document periods of non-operation of the control equipment TREA 5 whenever EQUI 1 is operating. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	16445	If the Permittee replaces TREA 5, the replacement control must meet or exceed the control efficiency requirements of TREA 5 as well as comply with all other requirements of TREA 5. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	17140	Pressure Drop >= 2.0 and <= 15.5 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. The Permittee shall continuously monitor the pressure drop. If the pressure drop is below or above the limit, this shall be reported as a deviation. This limit does not apply to periods of EQUI 1 startup, shutdown, or malfunction and does not apply during combustion of only natural gas. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	17145	Opacity < 5.0 percent opacity 3-hour average. Opacity in excess of this limit shall be considered an excursion under 40 CFR 64.6(c)(2), for purposes of the PM limit for EQUI 1. This applies for all types of fuel burned in EQUI 1. [40 CFR 64.3, Minn. R. 7017.0200]

SI Id	Sequence	Requirement
TREA 5	17150	The Permittee must 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 5	17160	Daily Inspections: The Permittee must read and record the opacity once every 24 hours. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 5	17161	Continuous Monitoring: The Permittee shall continuously, or at a minimum once every 15 minutes, monitor the opacity of the fabric filter exhaust. See COMG 3 for specific COMS operating requirements. [40 CFR 64.3(b)(4)(ii), Minn. R. 7017.0200]
TREA 5	17162	Recordkeeping of Opacity: The Permittee shall record the time and date of each opacity reading, and whether or not the observed opacity was below the limit specified in this permit. Recorded values above the limit specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 5	17170	The Permittee must maintain an audible alarm that is triggered whenever the pressure drop is greater than 15.5 inches of water column, 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, then the alarm must be triggered by the maximum range provided in the Notice of Compliance. When the alarm is triggered, the Permittee must take corrective actions. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	17180	Pressure Drop: The Permittee must 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. The Permittee must read and record the pressure drop across the fabric filter. The Permittee must record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	17190	The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 2(A)]
TREA 5	17200	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. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 5	17270	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
TREA 5	35750	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
TREA 5	35760	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]

SI Id	Sequence	Requirement
TREA 5	35770	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media or computer files, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 6	1	The Permittee must limit the inlet gas stream Temperature <= 310 degrees Fahrenheit 4-hour block average (as determined during the June 19-20, 2024 polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF) performance test). Notwithstanding the previous sentence, upon the Commissioner's written notification that EQUI 2 has demonstrated compliance under the conditions of a PCDD/PCDF performance test, the Permittee must maintain the inlet gas stream to TREA 6 on EQUI 2 as measured by Minn. R. 7011.1260, subp. 4(A) to have a temperature of no greater than 30 degrees Fahrenheit above the maximum demonstrated temperature of the particulate matter control device (4-hour block average) at the inlet of the particulate matter control device. The maximum demonstrated temperature of the particulate matter control device means the highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the particulate matter control device during 4 consecutive hours in the course of the most recent performance test for dioxins/furans emissions (PCDD/PCDF) that demonstrates compliance except as allowed in following items: A. During the annual PCDD/PCDF performance test and the two weeks preceding the annual PCDD/PCDF performance test, no particulate matter control device temperature limitations are applicable. B. The Permittee must submit written notification to the Commissioner 30 days prior to evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions to waive the particulate matter control device temperature limits. The notification must include the following information: 1) a description of the proposed project, and the outcome the project is designed to evaluate; 2) how the project conforms with the activities described in Minn. R. 7011.1265 for which the temperature limit can be waived; and 3) the length of time the project will take to complete; the project must be accomplished within 14 days. [Minn. R. 7011.1240, subp. 2]
TREA 6	2	The Permittee must calibrate, maintain, and operate temperature monitors that continuously read and record the temperatures of the flue gas at the inlet of TREA 6. [Minn. R. 7011.1260, subp. 2]
TREA 6	16440	The Permittee must vent emissions from EQUI 2 to TREA 6 whenever EQUI 2 operates, and operate and maintain TREA 6 at all times that any emissions are vented to TREA 6. The Permittee must document periods of non-operation of the control equipment TREA 6 whenever EQUI 2 is operating. [Minn. R. 7007.0800, subp. 2(A)]
TREA 6	16445	If the Permittee replaces TREA 6, the replacement control must meet or exceed the control efficiency requirements of TREA 6 as well as comply with all other requirements of TREA 6. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 6	17140	Pressure Drop >= 2.0 and <= 15.5 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. The Permittee shall continuously monitor the pressure drop. If the pressure drop is below or above the limit, this shall be reported as a deviation. This limit does not apply to periods of EQUI 2 startup, shutdown, or malfunction and does not apply during combustion of only natural gas. [Minn. R. 7007.0800, subp. 2(A)]

SI Id	Sequence	Requirement
TREA 6	17145	Opacity < 5.0 percent opacity 3-hour average. Opacity in excess of this limit shall be considered an excursion under 40 CFR 64.6(c)(2), for purposes of the PM limit for EQUI 2. This applies for all types of fuel burned in EQUI 2. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 6	17150	The Permittee must operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee must keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
TREA 6	17160	Daily Inspections: The Permittee must read and record the opacity once every 24 hours. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 6	17161	Continuous Monitoring: The Permittee shall continuously, or at a minimum once every 15 minutes, monitor the opacity of the fabric filter exhaust. See COMG 3 for specific COMS operating requirements. [40 CFR 64.3(b)(4)(ii), Minn. R. 7017.0200]
TREA 6	17162	Recordkeeping of Opacity: The Permittee shall record the time and date of each opacity reading, and whether or not the observed opacity was below the specified limit in this permit. Recorded values above the limit specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 6	17170	The Permittee must maintain an audible alarm that is triggered whenever the pressure drop is greater than 15.5 inches of water column, 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, then the alarm must be triggered by the maximum range provided in the Notice of Compliance. When the alarm is triggered, the Permittee must take corrective actions. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 6	17180	Pressure Drop: The Permittee must 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. The Permittee must read and record the pressure drop across the fabric filter. The Permittee must record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A)]
TREA 6	17190	The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 2(A)]
TREA 6	17200	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. [40 CFR 64.3, Minn. R. 7017.0200]
TREA 6	17270	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions 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. [40 CFR 64.7(d), Minn. R. 7017.0200]
TREA 6	35750	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
TREA 6	35760	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]

SI Id	Sequence	Requirement
TREA 6	35770	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media or computer files, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 7	17615	The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee must vent emissions from EQUI 36 to TREA 7 whenever EQUI 36 operates, and operate and maintain TREA 7 at all times that any emissions are vented to TREA 7. The Permittee must document periods of non-operation of the control equipment TREA 7 whenever EQUI 36 is operating. [Minn. R. 7011.0075, subp. 1]
TREA 7	18310	If the Permittee replaces TREA 7, the replacement control must meet or exceed the control efficiency requirements of TREA 7 as well as comply with all other requirements of TREA 7. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 7	18320	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 99 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A)]
TREA 7	18330	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 93 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A)]
TREA 7	18340	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron >= 93 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A)]
TREA 7	18360	Visible Emissions: The Permittee must check the fabric filter stack STRU 12 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions must be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions must be reported as a deviation. During inclement weather, the Permittee must read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7011.0080]
TREA 7	18370	Recordkeeping of Visible Emissions. The Permittee must record the time and date of each visible emission inspection, and whether or not any visible emissions were observed. [Minn. R. 7011.0080]
TREA 7	18380	Corrective Actions: The Permittee must 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 must 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 must keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
TREA 7	18390	Monitoring Equipment: The Permittee must 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. 7011.0075, subp. 3]

SI Id	Sequence	Requirement
TREA 7	18400	The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification; D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts; E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]
TREA 8	17615	The control equipment is listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall vent emissions from EQUI 37 to TREA 8 whenever EQUI 37 operates, and operate and maintain TREA 8 at all times that any emissions are vented to TREA 8. The Permittee shall document periods of non-operation of the control equipment TREA 8 whenever EQUI 37 is operating. [Minn. R. 7011.0075, subp. 1]
TREA 8	18310	If the Permittee replaces TREA 8, the replacement control must meet or exceed the control efficiency requirements of TREA 8 as well as comply with all other requirements of TREA 8. Prior to making such a change, the Permittee must apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee must submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 2(A)]
TREA 8	18320	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 99 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A)]
TREA 8	18330	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron >= 93 percent control efficiency. [Minn. R. 7011.0070, subp. 1(A)]
TREA 8	18340	The Permittee must operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron >= 93 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A)]
TREA 8	18360	Visible Emissions: The Permittee must check the fabric filter stack STRU 13 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions must be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions must be reported as a deviation. During inclement weather, the Permittee must read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7011.0080]
TREA 8	18370	Recordkeeping of Visible Emissions. The Permittee must record the time and date of each visible emission inspection and whether or not any visible emissions were observed. [Minn. R. 7011.0080]
TREA 8	18380	Corrective Actions: The Permittee must 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 must 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 must 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]

SI Id	Sequence	Requirement
TREA 8	18390	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. 7011.0075, subp. 3]
TREA 8	18400	The Permittee shall maintain each piece of control equipment according to the control equipment manufacturer's specifications, and shall: A. maintain an inventory of spare parts that are subject to frequent replacement, as required by the manufacturing specification or documented in records under items H and I; B. train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of malfunctioning equipment; C. thoroughly inspect all control equipment at least annually, or as required by the manufacturing specification; D. inspect monthly, or as required by the manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts; E. inspect quarterly, or as required by the manufacturing specification, components that are not subject to wear including structural components, housings, ducts, and hoods; F. check daily, or as required by the manufacturing specification, monitoring equipment, for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. calibrate (or replace) annually, or as required by the manufacturing specification, all monitoring equipment; H. maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; and I. maintain a record of parts replaced, repaired, or modified for the previous five years. [Minn. R. 7011.0075, subp. 2]