



Minnesota Pollution Control Agency

Air Individual Permit
Permit Limits to Avoid NSR
10901028-101

Permittee: Rochester Public Utilities Westside Energy Station
Facility name: Rochester Public Utilities Westside Energy Station
5846 19th Street NW
Rochester, MN 55901
Olmsted County

Operating permit issuance date: < >

Expiration date: Nonexpiring - All Title I Conditions do not expire

Permit characteristics: State; Limits to avoid Part 70/Limits to avoid Part 63/Limits to avoid NSR

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

This is a first time state permit issuance that authorizes the Permittee to construct and operate the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

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

Signature:

A grey rectangular box redacting the signature of Don Smith.

This document has been electronically signed.

for Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

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Permit expires: Nonexpiring

1. Permit applications table

Subsequent permit applications:

Title description	Application receipt date	Action number
State Individual Operating Permit	02/16/2016	101

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Permit expires: Nonexpiring

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2. Where to send submittals

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

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

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

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

3. Facility description

Rochester Public Utilities (RPU) proposes to construct and operate a new electric power generating station, Westside Energy Station (WES), adjacent to their Westside substation in Cascade Township, Olmsted County, Minnesota. The Facility will be comprised of five Wärtsilä 20V34SG non-emergency natural gas-fired engines with a total generating capacity of 48 megawatts and will operate as a peaking service. Each engine will be equipped with selective catalytic reduction and an oxidation catalyst.

This permit also authorizes installation of a diesel-fired emergency/black start engine and a diesel-fired fire pump. The fire pump may or may not be installed. The emergency engine will be used to provide power for startup of one non-emergency engine during times when there is no power available from the grid. Installation of one or more natural gas-fired heaters with a total capacity up to 9 MMBtu/hr is also authorized by this permit action.

The facility will avoid applicability of New Source Review (NSR) for nitrogen oxide (NO_x) and carbon monoxide (CO) emissions, and will avoid Title V designation for NO_x, CO, and volatile organic compound (VOC) emissions through requirements for control equipment operation, performance testing, and emissions limits. The facility will also avoid applicability of 40 CFR part 63 for HAP emissions through requirements for control equipment operation, performance testing, and emissions and operating hours limits.

4. Summary of subject items

SI ID: Description	Relationship Type	Related SI ID: Description
ACTV1: All IA's		
EQUI1: Non-emergency Engine 1	sends to	STRU1: Engine 1 Stack
EQUI1: Non-emergency Engine 1	is controlled by	TREA1: Engine 1 SCR
EQUI1: Non-emergency Engine 1	is controlled by	TREA6: Engine 1 Oxidation Catalyst
EQUI2: Non-emergency Engine 2	sends to	STRU2: Engine 2 Stack
EQUI2: Non-emergency Engine 2	is controlled by	TREA2: Engine 2 SCR
EQUI2: Non-emergency Engine 2	is controlled by	TREA7: Engine 2 Oxidation Catalyst
EQUI3: Non-emergency Engine 3	sends to	STRU3: Engine 3 Stack
EQUI3: Non-emergency Engine 3	is controlled by	TREA3: Engine 3 SCR
EQUI3: Non-emergency Engine 3	is controlled by	TREA8: Engine 3 Oxidation Catalyst
EQUI4: Non-emergency Engine 4	sends to	STRU4: Engine 4 Stack
EQUI4: Non-emergency Engine 4	is controlled by	TREA4: Engine 4 SCR
EQUI4: Non-emergency Engine 4	is controlled by	TREA9: Engine 4 Oxidation Catalyst
EQUI5: Non-emergency Engine 5	sends to	STRU5: Engine 5 Stack
EQUI5: Non-emergency Engine 5	is controlled by	TREA10: Engine 5 Oxidation Catalyst
EQUI5: Non-emergency Engine 5	is controlled by	TREA5: Engine 5 SCR
EQUI6: Building Heater	sends to	STRU6: Building Heater Stack
EQUI7: Emergency Black Start Engine	sends to	STRU7: Emergency Black Start Engine Stack
EQUI8: Fire Pump	sends to	STRU8: Fire Pump Stack
STRU1: Engine 1 Stack		
STRU2: Engine 2 Stack		

SI ID: Description	Relationship Type	Related SI ID: Description
STRU3: Engine 3 Stack		
STRU4: Engine 4 Stack		
STRU5: Engine 5 Stack		
STRU6: Building Heater Stack		
STRU7: Emergency Black Start Engine Stack		
STRU8: Fire Pump Stack		
STRU9: Engine Building		
STRU10: Stack Building		
TREA1: Engine 1 SCR	is controlled in series by	TREA6: Engine 1 Oxidation Catalyst
TREA2: Engine 2 SCR	is controlled in series by	TREA7: Engine 2 Oxidation Catalyst
TREA3: Engine 3 SCR	is controlled in series by	TREA8: Engine 3 Oxidation Catalyst
TREA4: Engine 4 SCR	is controlled in series by	TREA9: Engine 4 Oxidation Catalyst
TREA5: Engine 5 SCR	is controlled in series by	TREA10: Engine 5 Oxidation Catalyst
TREA6: Engine 1 Oxidation Catalyst		
TREA7: Engine 2 Oxidation Catalyst		
TREA8: Engine 3 Oxidation Catalyst		
TREA9: Engine 4 Oxidation Catalyst		
TREA10: Engine 5 Oxidation Catalyst		

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Permit Expires: Nonexpiring

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5. Limits and other requirements

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
TFAC 1	10901028	Rochester Public Utilities Westside Energy Station	
	5.1.1		The Permittee is authorized to construct and operate EQUI1-EQUI8, TREA1-TREA10, ACTV1, and STRU1-STRU8 within 36 months after issuance of Permit No. 10901028-101. The units shall meet all applicable requirements of this permit. [Minn. R. 7007.0800, subp. 2]
	5.1.2		<p>Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendix A (Insignificant Activities and General Applicable Requirements) and Appendix D (Best Management Practices for Emergency Engines).</p> <p>Modeling Parameters in Appendix B (Parameters used in Air Quality Modeling) are included for reference only as described elsewhere in this permit. [Minn. R. 7007.0800, subp. 2]</p>
	5.1.3		<p>PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.</p> <p>This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800, (A)(2)]</p>
	5.1.4		Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
	5.1.5		Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in this permit. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2]
	5.1.6		Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			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. 7007.800, subp. 16(J)]
	5.1.7		Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]
	5.1.8		Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
	5.1.9		Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
	5.1.10		Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
	5.1.11		The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
	5.1.12		Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
	5.1.13		Performance Test Notifications and Submittals: Performance Tests are due as outlined in this permit. Performance Test Notification (written): due 30 days

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			<p>before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 60 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018. [Minn. R. 7017.2018, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
	5.1.14		<p>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]</p>
	5.1.15		<p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. <p>For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]</p>
	5.1.16		<p>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)]</p>

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	5.1.17		Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
	5.1.18		Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
	5.1.19		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 non-expiring permits, these records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
	5.1.20		<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]</p>
	5.1.21		Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or

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			<p>reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>
	5.1.22		<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>
	5.1.23		<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
	5.1.24		<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p> <p>Upon adoption of a new or amended federal applicable requirement the Permittee 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]</p>
	5.1.25		<p>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.</p>

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			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 cannot be extended by the provisions of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
	5.1.26		Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner. [Minn. R. 7019.3000-7019.3100]
	5.1.27		Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0095]
	5.1.28		The parameters used in Air Toxics modeling performed for an EAW under Minn. R. ch. 4410 and for determining operational limits for permit number 10901028-101 are listed in Appendix B of this permit. The purpose of listing the parameters in the appendix is to provide a benchmark for future changes. [Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M), Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 1-2, Minn. R. 7009.0010-7009.0080, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9]
	5.1.29		The parameters used in air quality modeling for permit number 10901028-101 are listed in Appendix B of this permit. The purpose of listing the parameters in the appendix is to provide a benchmark for future changes. [Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M), Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 1-2, Minn. R. 7009.0010-7009.0080, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9]
COMG 1		Wartsila Engines	
	5.2.1		The Permittee shall limit Operating Hours <= 28,500 hours per year 12-month rolling sum basis for the sum total hours of operation of EQUI1-EQUI5 (including startup operation) to be calculated by the 15th day of each month as described later in this permit. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.2.2		The Permittee shall limit Operating Hours <= 1,825 hours per year 12-month rolling sum basis for the sum total of startup hours of EQUI1-EQUI5 to be calculated by the 15th day of each month as described later in this permit. The startup time shall be defined as the period of time beginning with initial fuel combustion after any period of non-operation and ending when the temperature at the control device inlet reaches 525 degrees Fahrenheit. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under

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			40 CFR 70.2 & Minn. R. 7007.0200]
	5.2.3		<p>Daily Recordkeeping: On each operating day, the Permittee shall calculate, record, and maintain the following for each unit in COMG1 for the previous operating day:</p> <ol style="list-style-type: none"> 1. The hours of operation; and 2. The hours of startup operation. <p>[Minn. R. 7011.7000, Title I Condition: 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.2.4		<p>Monthly Recordkeeping: By the 15th of the month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1. The monthly hours of operation for the previous calendar month for EQUI1-EQUI5 by summing the daily hours of operation for the previous month. 2. The monthly startup hours of operation for the previous calendar month for EQUI1-EQUI5 by summing the daily startup hours of operation for the previous month. 3. The 12-month rolling sum hours of hours of operation for EQUI1-EQUI5 for the previous 12-month period by summing the monthly hours of operation for EQUI1-EQUI5 for the previous 12 month period. 4. The 12-month rolling sum hours of startup hours of operation for EQUI1-EQUI5 for the previous 12-month period by summing the monthly startup hours of operation for EQUI1-EQUI5 for the previous 12 month period. <p>[Minn. R. 7007.0800, subps. 4-5]</p>
	5.2.5		<p>Hours of operation <= 40 hours of uncontrolled operation for the sum total hours of uncontrolled operation of EQUI1-EQUI5 during the engine shakedown period as defined below. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]</p>
	5.2.6		<p>Engine Shakedown Period: The engine generator shakedown period for EQUI1 is defined as the period of time commencing on the date of initial startup of the engine and terminating on the date that commissioning is complete or 180 days after initial startup, whichever is earlier. Commissioning is complete when the engine is available for commercial electric power generation. Operation of control equipment is not required during</p>

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			the engine shakedown period, but shall be initiated as soon as the shakedown period is complete. [Minn. R. 7007.0800, subp. 2]
	5.2.7		Engine operational limitations during the shakedown period: The Permittee shall not operate more than one engine without control at the same time. The Permittee shall not operate any engine without control at the same time as any of the other engines are started up. [Minn. R. 7007.0800, subp. 2]
	5.2.8		<p>Shakedown Period Recordkeeping: On each operating day during the shakedown period, the Permittee shall record the following:</p> <ol style="list-style-type: none"> 1. The identification number (EQUI1, EQUI2, EQUI3, EQUI4, or EQUI5) of the engine being operated without control; 2. The date the uncontrolled operation occurred; 3. The number of hours the engine was operated without control equipment operating, to the nearest tenth of an hour; 4. The running tally of hours operated without control during the shakedown period. <p>[Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.2.9		During each engine's shakedown period, all emissions from the engine shall be recorded as uncontrolled for purposes of calculating emissions for emission inventory. [Minn. R. 7007.0800, subp. 2]
EQUI 1	EU001	Engine 1	
	5.3.1		The Permittee shall limit NOx <= 1.24 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.2		The Permittee shall limit VOC <= 2.50 pounds per hour during normal operation. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.3		The Permittee shall limit CO <= 2.52 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.4		The Permittee shall limit Acetaldehyde <= 0.29 pounds per hour during normal operation. [Minn. R. 7011.7000,

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.5		The Permittee shall limit Acrolein <= 0.34 pounds per hour. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.6		The Permittee shall limit Formaldehyde <= 0.20 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.7		The Permittee shall limit Methanol <= 0.19 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.3.8		Normal operation for EQUI1 is defined as steady 100% load with the control equipment operating. [Minn. R. 7007.0800, subp. 2]
	5.3.9		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI1 to control equipment meeting the requirements of TREA1 and TREA6 whenever EQUI1 operates. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
	5.3.10		Sulfur Content of Fuel <= 0.05 percent by weight calendar year average basis. [40 CFR 72.7(a)(3), Minn. R. 7007.1075]
	5.3.11		Average Annual Sulfur Content Determination. The 0.05% fuel sulfur content requirement is assumed to be met by combusting only natural gas. [40 CFR 72.7(d)(1), Minn. R. 7007.1075]
	5.3.12		Loss of exemption. An exempt unit shall be treated as an affected unit under the Acid Rain Program on the earliest of the following dates: (A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe; (B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or (C) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under 40 CFR Section 72.7(d)). [40 CFR 72.7(f)(4)(ii),

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			Minn. R. 7007.1075]
	5.3.13		<p>For a period of 5 years from the date the records are created, the Permittee shall retain at the source records demonstrating that the requirements of 40 CFR Section 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.</p> <p>(i) Such records shall include, for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. (ii) The Permittee bears the burden of proof that the requirements of 40 CFR Section 72.7(a) are met. [40 CFR 72.7(f)(3), Minn. R. 7007.1075]</p>
	5.3.14		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.3.15		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.3.16		Fuel Type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.3.17		EQU11 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQU11. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.3.18		The Permittee is the owner and operator of EQU11 which is a non-emergency stationary lean burn spark ignition (SI) internal combustion engine (ICE), with a maximum engine power greater than or equal to 1,350 HP that commenced construction after June 12, 2006 and was manufactured on or after July 1, 2007. The date that construction commences is the date that the engine is ordered by the Permittee. [40 CFR 60.4230(a)(4)(i), Minn. R. 7011.2310]
	5.3.19		Nitrogen Oxides <= 1.00 grams per horsepower-hour or less than or equal to 82 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.3.20		Carbon Monoxide <= 2.00 grams per horsepower-hour or less than or equal to 270 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.3.21		Volatile Organic Compounds <= 0.70 grams per

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			horsepower-hour or less than or equal to 60 ppm, volumetric, dry at 15% oxygen. For the purposes of determining compliance with this limit, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.3.22		The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
	5.3.23		The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to determine compliance. [40 CFR 60.4243(b)(2)(ii), Minn. R. 7011.2310]
	5.3.24		Air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g), Minn. R. 7011.2310]
	5.3.25		Performance Test Methods: The Permittee shall conduct each performance test within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR Section 60.8 and under the specific conditions specified in 40 CFR pt. 60, subp. JJJJ, Table 2. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310]
	5.3.26		NOx Performance Test Procedures: a. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of NOx in the exhaust from EQUI1, the Permittee shall; i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJJ, Table 2. The sampling site must be located at the outlet of the control device.

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			<p>ii. Determine the oxygen concentration of the exhaust at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for NOx concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1 or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure moisture content of the exhaust of the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</p> <p>v. Measure NOx at the outlet of the control device using Method 7E of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.3.27		<p>CO Performance Test Procedures:</p> <p>b. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of CO in the exhaust from EQUI1, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for CO concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR</p>

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			<p>pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</p> <p>v. Measure CO at the outlet of the control device using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.3.28		<p>VOC Performance Test Procedures:</p> <p>c. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of VOC in the exhaust from engines EQUI1, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for VOC concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D</p>

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			<p>6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.</p> <p>v. Measure VOC at the outlet of the control device using Methods 25A and 18 of 40 CFR pt. 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR Section 1065.265, Method 18 of 40 CFR pt. 60, appendix A-6, Method 320 of 40 CFR pt. 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.3.29		<p>Performance Test Methods: The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR Section 60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, a performance test shall be conducted immediately upon startup of the engine. [40 CFR 60.4244(b), Minn. R. 7011.2310]</p>
	5.3.30		<p>Performance Test Methods: The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR Section 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c), Minn. R. 7011.2310]</p>
	5.3.31		<p>NOx Compliance Demonstration: The Permittee must determine compliance with the nitrogen oxides (NOx) mass per unit output emission limit by converting the concentration of NOx in the engine exhaust using Equation 1 of 40 CFR Section 60.4244(d), as shown below:</p> <p>Equation 1: $ER = [Cd \times (1.912 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of NOx in g/HP-hr. Cd = Measured NOx concentration in parts per million by volume (ppmv). 1.912×10^{-3} = Conversion constant for ppm NOx to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.</p>

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			T = Time of test run, in hours. HP-hr = Brake work of the engine, horsepower-hour (HP-hr). [40 CFR 60.4244(d), Minn. R. 7011.2310]
	5.3.32		CO Compliance Demonstration: The Permittee must determine compliance with the CO mass per unit output emission limit by converting the concentration of CO in the engine exhaust using Equation 2 of 40 CFR Section 60.4244(e), as shown below: Equation 2: $ER = [Cd \times (1.164 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of CO in g/HP-hr. Cd = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(e), Minn. R. 7011.2310]
	5.3.33		VOC Compliance Demonstration: The Permittee must determine compliance with the VOC mass per unit output emission limit by converting the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR Section 60.4244(f), as shown below. When calculating emissions of VOC for the purposes of 40 CFR pt. 60, subp. JJJ, the Permittee shall not include emissions of formaldehyde. Equation 3: $ER = [Cd \times (1.833 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(f), Minn. R. 7011.2310]
	5.3.34		VOC Alternative Compliance Demonstration: If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then the

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			<p>Permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR Section 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR Section 60.4244(g).</p> <p>Equation 4: $RF_i = C_{Mi} / C_{Ai}$</p> <p>Where: RF_i = Response factor of compound i when measured with EPA Method 25A. C_{Mi} = Measured concentration of compound i in ppmv as carbon. C_{Ai} = True concentration of compound i in ppmv as carbon.</p> <p>Equation 5: $C_{icorr} = RF_i \times C_{imeas}$</p> <p>Where: C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon. C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.</p> <p>Equation 6: $C_{Peq} = 0.6098 \times C_{icorr}$</p> <p>Where: C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM. [40 CFR 60.4244(g), Minn. R. 7011.2310]</p>
	5.3.35		<p>Recordkeeping: The Permittee shall keep records of the following information:</p> <ol style="list-style-type: none"> 1. All notifications submitted to comply with 40 CFR pt. 60, sub. JJJ and all documentation supporting any notification. 2. Maintenance conducted on the engine. 3. Documentation that the engine meets the emission standards. [40 CFR 60.4245(a), Minn. R. 7011.2310]
	5.3.36		<p>The Permittee shall submit an initial notification as required in 40 CFR Section 60.7(a)(1). The notification must include the information listed below:</p>

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			(1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), Minn. R. 7011.2310]
	5.3.37		General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. JJJ, Table 3. [40 CFR 60.4246, Minn. R. 7011.2310]
	5.3.38		Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c), Minn. R. 7011.0050, Minn. R. 7017.2015]
	5.3.39		Circumvention: No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. [40 CFR 60.12, Minn. R. 7011.0050]
EQUI 2	EU002	Engine 2	
	5.4.1		The Permittee shall limit NOx <= 1.24 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.2		The Permittee shall limit VOC <= 2.50 pounds per hour during normal operation. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.3		The Permittee shall limit CO <= 2.52 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.4		The Permittee shall limit Acetaldehyde <= 0.29 pounds

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			per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.5		The Permittee shall limit Acrolein <= 0.34 pounds per hour. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.6		The Permittee shall limit Formaldehyde <= 0.20 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.7		The Permittee shall limit Methanol <= 0.19 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.4.8		Normal operation for EQUI2 is defined as steady 100% load with the control equipment operating. [Minn. R. 7007.0800, subp. 2]
	5.4.9		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI2 to control equipment meeting the requirements of TREA2 and TREA7 whenever EQUI2 operates. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
	5.4.10		Sulfur Content of Fuel <= 0.05 percent by weight calendar year average basis. [40 CFR 72.7(a)(3), Minn. R. 7007.1075]
	5.4.11		Average Annual Sulfur Content Determination. The 0.05% fuel sulfur content requirement is assumed to be met by combusting only natural gas. [40 CFR 72.7(d)(1), Minn. R. 7007.1075]
	5.4.12		<p>Loss of exemption. An exempt unit shall be treated as an affected unit under the Acid Rain Program on the earliest of the following dates:</p> <p>(A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe;</p> <p>(B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or</p> <p>(C) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined</p>

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			under 40 CFR Section 72.7(d)). [40 CFR 72.7(f)(4)(ii), Minn. R. 7007.1075]
	5.4.13		<p>For a period of 5 years from the date the records are created, the Permittee shall retain at the source records demonstrating that the requirements of 40 CFR Section 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.</p> <p>(i) Such records shall include, for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. (ii) The Permittee bears the burden of proof that the requirements of 40 CFR Section 72.7(a) are met. [40 CFR 72.7(f)(3), Minn. R. 7007.1075]</p>
	5.4.14		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.4.15		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.4.16		Fuel Type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.4.17		EQUI2 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI2. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.4.18		The Permittee is the owner and operator of EQUI2 which is a non-emergency stationary lean burn spark ignition (SI) internal combustion engine (ICE), with a maximum engine power greater than or equal to 1,350 HP that commenced construction after June 12, 2006 and was manufactured on or after July 1, 2007. The date that construction commences is the date that the engine is ordered by the Permittee. [40 CFR 60.4230(a)(4)(i), Minn. R. 7011.2310]
	5.4.19		Nitrogen Oxides <= 1.00 grams per horsepower-hour or less than or equal to 82 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.4.20		Carbon Monoxide <= 2.00 grams per horsepower-hour or less than or equal to 270 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]

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	5.4.21		Volatile Organic Compounds <= 0.70 grams per horsepower-hour or less than or equal to 60 ppm, volumetric, dry at 15% oxygen. For the purposes of determining compliance with this limit, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.4.22		The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
	5.4.23		The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to determine compliance. [40 CFR 60.4243(b)(2)(ii), Minn. R. 7011.2310]
	5.4.24		Air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g), Minn. R. 7011.2310]
	5.4.25		Performance Test Methods: The Permittee shall conduct each performance test within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR Section 60.8 and under the specific conditions specified in 40 CFR pt. 60, subp. JJJ, Table 2. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]
	5.4.26		NOx Performance Test Procedures: a. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of NOx in the exhaust from EQUI2, the Permittee shall; i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.

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			<p>ii. Determine the oxygen concentration of the exhaust at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for NOx concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1 or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure moisture content of the exhaust of the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</p> <p>v. Measure NOx at the outlet of the control device using Method 7E of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.4.27		<p>CO Performance Test Procedures:</p> <p>b. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of CO in the exhaust from EQUI2, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for CO concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the</p>

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			<p>exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</p> <p>v. Measure CO at the outlet of the control device using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.4.28		<p>VOC Performance Test Procedures:</p> <p>c. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of VOC in the exhaust from engines EQUI2, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for VOC concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method</p>

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			<p>320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.</p> <p>v. Measure VOC at the outlet of the control device using Methods 25A and 18 of 40 CFR pt. 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR Section 1065.265, Method 18 of 40 CFR pt. 60, appendix A-6, Method 320 of 40 CFR pt. 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.4.29		<p>Performance Test Methods: The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR Section 60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, a performance test shall be conducted immediately upon startup of the engine. [40 CFR 60.4244(b), Minn. R. 7011.2310]</p>
	5.4.30		<p>Performance Test Methods: The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR Section 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c), Minn. R. 7011.2310]</p>
	5.4.31		<p>NOx Compliance Demonstration: The Permittee must determine compliance with the nitrogen oxides (NOx) mass per unit output emission limit by converting the concentration of NOx in the engine exhaust using Equation 1 of 40 CFR Section 60.4244(d), as shown below:</p> <p>Equation 1: $ER = [Cd \times (1.912 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of NOx in g/HP-hr. Cd = Measured NOx concentration in parts per million by volume (ppmv). 1.912×10^{-3} = Conversion constant for ppm NOx to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic</p>

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			meter per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, horsepower-hour (HP-hr). [40 CFR 60.4244(d), Minn. R. 7011.2310]
	5.4.32		CO Compliance Demonstration: The Permittee must determine compliance with the CO mass per unit output emission limit by converting the concentration of CO in the engine exhaust using Equation 2 of 40 CFR Section 60.4244(e), as shown below: Equation 2: $ER = [Cd \times (1.164 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of CO in g/HP-hr. Cd = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(e), Minn. R. 7011.2310]
	5.4.33		VOC Compliance Demonstration: The Permittee must determine compliance with the VOC mass per unit output emission limit by converting the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR Section 60.4244(f), as shown below. When calculating emissions of VOC for the purposes of 40 CFR pt. 60, subp. JJJ, the Permittee shall not include emissions of formaldehyde. Equation 3: $ER = [Cd \times (1.833 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(f), Minn. R. 7011.2310]
	5.4.34		VOC Alternative Compliance Demonstration: If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or

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			<p>Method 320 of 40 CFR part 63, appendix A, then the Permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR Section 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR Section 60.4244(g).</p> <p>Equation 4: $RF_i = CM_i / CA_i$</p> <p>Where: RF_i = Response factor of compound i when measured with EPA Method 25A. CM_i = Measured concentration of compound i in ppmv as carbon. CA_i = True concentration of compound i in ppmv as carbon.</p> <p>Equation 5: $C_{icorr} = RF_i \times C_{imeas}$</p> <p>Where: C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon. C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.</p> <p>Equation 6: $CP_{eq} = 0.6098 \times C_{icorr}$</p> <p>Where: CP_{eq} = Concentration of compound i in mg of propane equivalent per DSCM. [40 CFR 60.4244(g), Minn. R. 7011.2310]</p>
	5.4.35		<p>Recordkeeping: The Permittee shall keep records of the following information:</p> <ol style="list-style-type: none"> 1. All notifications submitted to comply with 40 CFR pt. 60, sub. JJJ and all documentation supporting any notification. 2. Maintenance conducted on the engine. 3. Documentation that the engine meets the emission standards. [40 CFR 60.4245(a), Minn. R. 7011.2310]
	5.4.36		<p>The Permittee shall submit an initial notification as required in 40 CFR Section 60.7(a)(1). The notification</p>

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			<p>must include the information listed below:</p> <p>(1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), Minn. R. 7011.2310]</p>
	5.4.37		<p>General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. JJJ, Table 3. [40 CFR 60.4246, Minn. R. 7011.2310]</p>
	5.4.38		<p>Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c), Minn. R. 7011.0050, Minn. R. 7017.2015]</p>
	5.4.39		<p>Circumvention: No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. [40 CFR 60.12, Minn. R. 7011.0050]</p>
EQUI 3	EU003	Engine 3	
	5.5.1		<p>The Permittee shall limit NOx <= 1.24 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.5.2		<p>The Permittee shall limit VOC <= 2.50 pounds per hour during normal operation. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.5.3		<p>The Permittee shall limit CO <= 2.52 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>

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	5.5.4		The Permittee shall limit Acetaldehyde <= 0.29 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.5.5		The Permittee shall limit Acrolein <= 0.34 pounds per hour. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.5.6		The Permittee shall limit Formaldehyde <= 0.20 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.5.7		The Permittee shall limit Methanol <= 0.19 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.5.8		Normal operation for EQUI3 is defined as steady 100% load with the control equipment operating. [Minn. R. 7007.0800, subp. 2]
	5.5.9		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI3 to control equipment meeting the requirements of TREA3 and TREA8 whenever EQUI3 operates. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
	5.5.10		Sulfur Content of Fuel <= 0.05 percent by weight calendar year average basis. [40 CFR 72.7(a)(3), Minn. R. 7007.1075]
	5.5.11		Average Annual Sulfur Content Determination. The 0.05% fuel sulfur content requirement is assumed to be met by combusting only natural gas. [40 CFR 72.7(d)(1), Minn. R. 7007.1075]
	5.5.12		Loss of exemption. An exempt unit shall be treated as an affected unit under the Acid Rain Program on the earliest of the following dates: (A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe; (B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or (C) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at

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			the unit exceeds 0.05 percent by weight (as determined under 40 CFR Section 72.7(d)). [40 CFR 72.7(f)(4)(ii), Minn. R. 7007.1075]
	5.5.13		<p>For a period of 5 years from the date the records are created, the Permittee shall retain at the source records demonstrating that the requirements of 40 CFR Section 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.</p> <p>(i) Such records shall include, for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. (ii) The Permittee bears the burden of proof that the requirements of 40 CFR Section 72.7(a) are met. [40 CFR 72.7(f)(3), Minn. R. 7007.1075]</p>
	5.5.14		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.5.15		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.5.16		Fuel Type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.5.17		EQUI3 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI3. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.5.18		The Permittee is the owner and operator of EQUI3 which is a non-emergency stationary lean burn spark ignition (SI) internal combustion engine (ICE), with a maximum engine power greater than or equal to 1,350 HP that commenced construction after June 12, 2006 and was manufactured on or after July 1, 2007. The date that construction commences is the date that the engine is ordered by the Permittee. [40 CFR 60.4230(a)(4)(i), Minn. R. 7011.2310]
	5.5.19		Nitrogen Oxides <= 1.00 grams per horsepower-hour or less than or equal to 82 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.5.20		Carbon Monoxide <= 2.00 grams per horsepower-hour or less than or equal to 270 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp.

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			JJJ(Table 1), Minn. R. 7011.2310]
	5.5.21		Volatile Organic Compounds <= 0.70 grams per horsepower-hour or less than or equal to 60 ppm, volumetric, dry at 15% oxygen. For the purposes of determining compliance with this limit, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.5.22		The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
	5.5.23		The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to determine compliance. [40 CFR 60.4243(b)(2)(ii), Minn. R. 7011.2310]
	5.5.24		Air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g), Minn. R. 7011.2310]
	5.5.25		Performance Test Methods: The Permittee shall conduct each performance test within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR Section 60.8 and under the specific conditions specified in 40 CFR pt. 60, subp. JJJ, Table 2. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]
	5.5.26		NOx Performance Test Procedures: a. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of NOx in the exhaust from EQUI3, the Permittee shall; i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be

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			<p>located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for NOx concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1 or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure moisture content of the exhaust of the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</p> <p>v. Measure NOx at the outlet of the control device using Method 7E of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.5.27		<p>CO Performance Test Procedures:</p> <p>b. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of CO in the exhaust from EQUI3, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for CO concentration.</p>

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			<p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</p> <p>v. Measure CO at the outlet of the control device using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.5.28		<p>VOC Performance Test Procedures:</p> <p>c. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of VOC in the exhaust from engines EQUI3, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for VOC concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location</p>

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			<p>using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.</p> <p>v. Measure VOC at the outlet of the control device using Methods 25A and 18 of 40 CFR pt. 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR Section 1065.265, Method 18 of 40 CFR pt. 60, appendix A-6, Method 320 of 40 CFR pt. 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.5.29		<p>Performance Test Methods: The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR Section 60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, a performance test shall be conducted immediately upon startup of the engine. [40 CFR 60.4244(b), Minn. R. 7011.2310]</p>
	5.5.30		<p>Performance Test Methods: The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR Section 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c), Minn. R. 7011.2310]</p>
	5.5.31		<p>NOx Compliance Demonstration: The Permittee must determine compliance with the nitrogen oxides (NOx) mass per unit output emission limit by converting the concentration of NOx in the engine exhaust using Equation 1 of 40 CFR Section 60.4244(d), as shown below:</p> <p>Equation 1: $ER = [Cd \times (1.912 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of NOx in g/HP-hr. Cd = Measured NOx concentration in parts per million by volume (ppmv). 1.912×10^{-3} = Conversion constant for ppm NOx to grams per standard cubic meter at 20 degrees Celsius.</p>

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			<p>Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, horsepower-hour (HP-hr). [40 CFR 60.4244(d), Minn. R. 7011.2310]</p>
	5.5.32		<p>CO Compliance Demonstration: The Permittee must determine compliance with the CO mass per unit output emission limit by converting the concentration of CO in the engine exhaust using Equation 2 of 40 CFR Section 60.4244(e), as shown below:</p> <p>Equation 2: $ER = [Cd \times (1.164 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of CO in g/HP-hr. Cd = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(e), Minn. R. 7011.2310]</p>
	5.5.33		<p>VOC Compliance Demonstration: The Permittee must determine compliance with the VOC mass per unit output emission limit by converting the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR Section 60.4244(f), as shown below. When calculating emissions of VOC for the purposes of 40 CFR pt. 60, subp. JJJ, the Permittee shall not include emissions of formaldehyde.</p> <p>Equation 3: $ER = [Cd \times (1.833 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(f), Minn. R. 7011.2310]</p>
	5.5.34		<p>VOC Alternative Compliance Demonstration: If the Permittee chooses to measure VOC emissions using</p>

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			<p>either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then the Permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR Section 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR Section 60.4244(g).</p> <p>Equation 4: $RF_i = C_{Mi} / C_{Ai}$</p> <p>Where: RFi = Response factor of compound i when measured with EPA Method 25A. CMi = Measured concentration of compound i in ppmv as carbon. CAi = True concentration of compound i in ppmv as carbon.</p> <p>Equation 5: $C_{icorr} = RFi \times C_{imeas}$</p> <p>Where: Cicorr = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon. Cimeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon.</p> <p>Equation 6: $C_{Peq} = 0.6098 \times C_{icorr}$</p> <p>Where: CPeq = Concentration of compound i in mg of propane equivalent per DSCM. [40 CFR 60.4244(g), Minn. R. 7011.2310]</p>
	5.5.35		<p>Recordkeeping: The Permittee shall keep records of the following information:</p> <ol style="list-style-type: none"> 1. All notifications submitted to comply with 40 CFR pt. 60, sub. JJJ and all documentation supporting any notification. 2. Maintenance conducted on the engine. 3. Documentation that the engine meets the emission standards. [40 CFR 60.4245(a), Minn. R. 7011.2310]
	5.5.36		The Permittee shall submit an initial notification as

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			<p>required in 40 CFR Section 60.7(a)(1). The notification must include the information listed below:</p> <p>(1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), Minn. R. 7011.2310]</p>
	5.5.37		<p>General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. JJJ, Table 3. [40 CFR 60.4246, Minn. R. 7011.2310]</p>
	5.5.38		<p>Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c), Minn. R. 7011.0050, Minn. R. 7017.2015]</p>
	5.5.39		<p>Circumvention: No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. [40 CFR 60.12, Minn. R. 7011.0050]</p>
EQUI 4	EU004	Engine 4	
	5.6.1		<p>The Permittee shall limit NOx <= 1.24 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.6.2		<p>The Permittee shall limit VOC <= 2.50 pounds per hour during normal operation. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.6.3		<p>The Permittee shall limit CO <= 2.52 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 &</p>

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			Minn. R. 7007.0200]
	5.6.4		The Permittee shall limit Acetaldehyde <= 0.29 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.6.5		The Permittee shall limit Acrolein <= 0.34 pounds per hour. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.6.6		The Permittee shall limit Formaldehyde <= 0.20 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.6.7		The Permittee shall limit Methanol <= 0.19 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.6.8		Normal operation for EQUI4 is defined as steady 100% load with the control equipment operating. [Minn. R. 7007.0800, subp. 2]
	5.6.9		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI4 to control equipment meeting the requirements of TREA4 and TREA9 whenever EQUI4 operates. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
	5.6.10		Sulfur Content of Fuel <= 0.05 percent by weight calendar year average basis. [40 CFR 72.7(a)(3), Minn. R. 7007.1075]
	5.6.11		Average Annual Sulfur Content Determination. The 0.05% fuel sulfur content requirement is assumed to be met by combusting only natural gas. [40 CFR 72.7(d)(1), Minn. R. 7007.1075]
	5.6.12		Loss of exemption. An exempt unit shall be treated as an affected unit under the Acid Rain Program on the earliest of the following dates: (A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe; (B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or (C) January 1 of the year following the year in which the

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			annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under 40 CFR Section 72.7(d)). [40 CFR 72.7(f)(4)(ii), Minn. R. 7007.1075]
	5.6.13		<p>For a period of 5 years from the date the records are created, the Permittee shall retain at the source records demonstrating that the requirements of 40 CFR Section 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.</p> <p>(i) Such records shall include, for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. (ii) The Permittee bears the burden of proof that the requirements of 40 CFR Section 72.7(a) are met. [40 CFR 72.7(f)(3), Minn. R. 7007.1075]</p>
	5.6.14		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.6.15		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.6.16		Fuel Type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.6.17		EQUI4 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI4. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.6.18		The Permittee is the owner and operator of EQUI4 which is a non-emergency stationary lean burn spark ignition (SI) internal combustion engine (ICE), with a maximum engine power greater than or equal to 1,350 HP that commenced construction after June 12, 2006 and was manufactured on or after July 1, 2007. The date that construction commences is the date that the engine is ordered by the Permittee. [40 CFR 60.4230(a)(4)(i), Minn. R. 7011.2310]
	5.6.19		Nitrogen Oxides <= 1.00 grams per horsepower-hour or less than or equal to 82 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.6.20		Carbon Monoxide <= 2.00 grams per horsepower-hour or less than or equal to 270 ppm, volumetric, dry at 15%

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			oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.6.21		Volatile Organic Compounds <= 0.70 grams per horsepower-hour or less than or equal to 60 ppm, volumetric, dry at 15% oxygen. For the purposes of determining compliance with this limit, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.6.22		The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
	5.6.23		The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to determine compliance. [40 CFR 60.4243(b)(2)(ii), Minn. R. 7011.2310]
	5.6.24		Air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g), Minn. R. 7011.2310]
	5.6.25		Performance Test Methods: The Permittee shall conduct each performance test within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR Section 60.8 and under the specific conditions specified in 40 CFR pt. 60, subp. JJJ, Table 2. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]
	5.6.26		NOx Performance Test Procedures: a. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of NOx in the exhaust from EQUI4, the Permittee shall; i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40

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			<p>CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for NOx concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1 or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure moisture content of the exhaust of the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</p> <p>v. Measure NOx at the outlet of the control device using Method 7E of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.6.27		<p>CO Performance Test Procedures:</p> <p>b. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of CO in the exhaust from EQUI4, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for CO concentration.</p>

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			<p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</p> <p>v. Measure CO at the outlet of the control device using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.6.28		<p>VOC Performance Test Procedures:</p> <p>c. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of VOC in the exhaust from engines EQUI4, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for VOC concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the</p>

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			<p>exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.</p> <p>v. Measure VOC at the outlet of the control device using Methods 25A and 18 of 40 CFR pt. 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR Section 1065.265, Method 18 of 40 CFR pt. 60, appendix A-6, Method 320 of 40 CFR pt. 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.6.29		<p>Performance Test Methods: The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR Section 60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, a performance test shall be conducted immediately upon startup of the engine. [40 CFR 60.4244(b), Minn. R. 7011.2310]</p>
	5.6.30		<p>Performance Test Methods: The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR Section 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c), Minn. R. 7011.2310]</p>
	5.6.31		<p>NOx Compliance Demonstration: The Permittee must determine compliance with the nitrogen oxides (NOx) mass per unit output emission limit by converting the concentration of NOx in the engine exhaust using Equation 1 of 40 CFR Section 60.4244(d), as shown below:</p> <p>Equation 1: $ER = [Cd \times (1.912 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of NOx in g/HP-hr. Cd = Measured NOx concentration in parts per million by volume (ppmv). 1.912×10^{-3} = Conversion constant for ppm NOx to</p>

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			grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, horsepower-hour (HP-hr). [40 CFR 60.4244(d), Minn. R. 7011.2310]
	5.6.32		CO Compliance Demonstration: The Permittee must determine compliance with the CO mass per unit output emission limit by converting the concentration of CO in the engine exhaust using Equation 2 of 40 CFR Section 60.4244(e), as shown below: Equation 2: $ER = [Cd \times (1.164 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of CO in g/HP-hr. Cd = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(e), Minn. R. 7011.2310]
	5.6.33		VOC Compliance Demonstration: The Permittee must determine compliance with the VOC mass per unit output emission limit by converting the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR Section 60.4244(f), as shown below. When calculating emissions of VOC for the purposes of 40 CFR pt. 60, subp. JJJ, the Permittee shall not include emissions of formaldehyde. Equation 3: $ER = [Cd \times (1.833 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$ Where: ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(f), Minn. R. 7011.2310]
	5.6.34		VOC Alternative Compliance Demonstration:

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			<p>If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then the Permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR Section 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR Section 60.4244(g).</p> <p>Equation 4: $RF_i = C_{Mi} / C_{Ai}$</p> <p>Where: RFi = Response factor of compound i when measured with EPA Method 25A. CMi = Measured concentration of compound i in ppmv as carbon. CAi = True concentration of compound i in ppmv as carbon.</p> <p>Equation 5: $C_{icorr} = RFi \times C_{imeas}$</p> <p>Where: Cicorr = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon. Cimeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon.</p> <p>Equation 6: $C_{Peq} = 0.6098 \times C_{icorr}$</p> <p>Where: CPeq = Concentration of compound i in mg of propane equivalent per DSCM. [40 CFR 60.4244(g), Minn. R. 7011.2310]</p>
	5.6.35		<p>Recordkeeping: The Permittee shall keep records of the following information:</p> <ol style="list-style-type: none"> 1. All notifications submitted to comply with 40 CFR pt. 60, sub. JJJ and all documentation supporting any notification. 2. Maintenance conducted on the engine. 3. Documentation that the engine meets the emission standards. [40 CFR 60.4245(a), Minn. R. 7011.2310]

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	5.6.36		<p>The Permittee shall submit an initial notification as required in 40 CFR Section 60.7(a)(1). The notification must include the information listed below:</p> <p>(1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), Minn. R. 7011.2310]</p>
	5.6.37		<p>General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. JJJ, Table 3. [40 CFR 60.4246, Minn. R. 7011.2310]</p>
	5.6.38		<p>Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c), Minn. R. 7011.0050, Minn. R. 7017.2015]</p>
	5.6.39		<p>Circumvention: No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. [40 CFR 60.12, Minn. R. 7011.0050]</p>
EQUI 5	EU005	Engine 5	
	5.7.1		<p>The Permittee shall limit NOx <= 1.24 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.7.2		<p>The Permittee shall limit VOC <= 2.50 pounds per hour during normal operation. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.7.3		<p>The Permittee shall limit CO <= 2.52 pounds per hour during normal operation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R.</p>

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			7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.7.4		The Permittee shall limit Acetaldehyde <= 0.29 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.7.5		The Permittee shall limit Acrolein <= 0.34 pounds per hour. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.7.6		The Permittee shall limit Formaldehyde <= 0.20 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.7.7		The Permittee shall limit Methanol <= 0.19 pounds per hour during normal operation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.7.8		Normal operation for EQUI5 is defined as steady 100% load with the control equipment operating. [Minn. R. 7007.0800, subp. 2]
	5.7.9		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI5 to control equipment meeting the requirements of TREA5 and TREA10 whenever EQUI5 operates. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200; Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
	5.7.10		Sulfur Content of Fuel <= 0.05 percent by weight calendar year average basis. [40 CFR 72.7(a)(3), Minn. R. 7007.1075]
	5.7.11		Average Annual Sulfur Content Determination. The 0.05% fuel sulfur content requirement is assumed to be met by combusting only natural gas. [40 CFR 72.7(d)(1), Minn. R. 7007.1075]
	5.7.12		<p>Loss of exemption. An exempt unit shall be treated as an affected unit under the Acid Rain Program on the earliest of the following dates:</p> <p>(A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe;</p> <p>(B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or</p>

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			(C) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under 40 CFR Section 72.7(d)). [40 CFR 72.7(f)(4)(ii), Minn. R. 7007.1075]
	5.7.13		<p>For a period of 5 years from the date the records are created, the Permittee shall retain at the source records demonstrating that the requirements of 40 CFR Section 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.</p> <p>(i) Such records shall include, for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. (ii) The Permittee bears the burden of proof that the requirements of 40 CFR Section 72.7(a) are met. [40 CFR 72.7(f)(3), Minn. R. 7007.1075]</p>
	5.7.14		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.7.15		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0006 lb/MMBtu due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.7.16		Fuel Type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.7.17		EQUI5 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. JJJJ. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI5. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.7.18		The Permittee is the owner and operator of EQUI5 which is a non-emergency stationary lean burn spark ignition (SI) internal combustion engine (ICE), with a maximum engine power greater than or equal to 1,350 HP that commenced construction after June 12, 2006 and was manufactured on or after July 1, 2007. The date that construction commences is the date that the engine is ordered by the Permittee. [40 CFR 60.4230(a)(4)(i), Minn. R. 7011.2310]
	5.7.19		Nitrogen Oxides <= 1.00 grams per horsepower-hour or less than or equal to 82 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJJ(Table 1), Minn. R. 7011.2310]
	5.7.20		Carbon Monoxide <= 2.00 grams per horsepower-hour or

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			less than or equal to 270 ppm, volumetric, dry at 15% oxygen. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.7.21		Volatile Organic Compounds <= 0.70 grams per horsepower-hour or less than or equal to 60 ppm, volumetric, dry at 15% oxygen. For the purposes of determining compliance with this limit, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4233(e), 40 CFR pt. 60, subp. JJJ(Table 1), Minn. R. 7011.2310]
	5.7.22		The Permittee shall operate and maintain the stationary SI RICE that achieves the emission standards as required in 40 CFR Section 60.4233 over the entire life of the engine. [40 CFR 60.4234, Minn. R. 7011.2310]
	5.7.23		The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to determine compliance. [40 CFR 60.4243(b)(2)(ii), Minn. R. 7011.2310]
	5.7.24		Air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g), Minn. R. 7011.2310]
	5.7.25		Performance Test Methods: The Permittee shall conduct each performance test within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR Section 60.8 and under the specific conditions specified in 40 CFR pt. 60, subp. JJJ, Table 2. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]
	5.7.26		NOx Performance Test Procedures: a. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of NOx in the exhaust from EQUI5, the Permittee shall; i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or

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			<p>according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for NOx concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1 or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure moisture content of the exhaust of the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for NOx concentration.</p> <p>v. Measure NOx at the outlet of the control device using Method 7E of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.7.27		<p>CO Performance Test Procedures:</p> <p>b. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of CO in the exhaust from EQUI5, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the</p>

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			<p>same time as the measurements for CO concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p> <p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for CO concentration.</p> <p>v. Measure CO at the outlet of the control device using Method 10 of 40 CFR pt. 60, appendix A-4, ASTM Method D6522-00(2005), Method 320 of 40 CFR pt. 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.7.28		<p>VOC Performance Test Procedures:</p> <p>c. For demonstrating compliance according to 40 CFR Section 60.4244 and complying with the requirement to limit the concentration of VOC in the exhaust from engines EQUI5, the Permittee shall;</p> <p>i. Select the sampling port location and the number/location of traverse points using Method 1 or 1A of 40 CFR pt. 60, appendix A-1, if measuring flow rate, or according to the alternative requirements given in 40 CFR pt. 60, subp. JJJ, Table 2. The sampling site must be located at the outlet of the control device.</p> <p>ii. Determine the oxygen concentration of the exhaust from the engine at the sampling port location using Method 3, 3A, or 3B of 40 CFR pt. 60, appendix A-2 or ASTM Method D6522-00(2005). Measurements to determine oxygen concentration must be made at the same time as the measurements for VOC concentration.</p> <p>iii. If necessary, determine the exhaust flowrate of the exhaust from the engine using Method 2 or 2C of 40 CFR pt. 60, appendix A-1, or Method 19 of 40 CFR pt. 60, appendix A-7.</p>

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			<p>iv. If necessary, measure the moisture content of the exhaust from the engine at the sampling port location using Method 4 of 40 CFR pt. 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.</p> <p>v. Measure VOC at the outlet of the control device using Methods 25A and 18 of 40 CFR pt. 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR Section 1065.265, Method 18 of 40 CFR pt. 60, appendix A-6, Method 320 of 40 CFR pt. 63, appendix A, or ASTM Method D 6348-03 (incorporated by reference, see 40 CFR Section 60.17). Results of this test consist of the average of the three 1-hour or longer runs. [40 CFR 60.4244(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310]</p>
	5.7.29		<p>Performance Test Methods: The Permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR Section 60.8(c). If the engine is non-operational, the Permittee does not need to startup the engine solely to conduct a performance test; however, a performance test shall be conducted immediately upon startup of the engine. [40 CFR 60.4244(b), Minn. R. 7011.2310]</p>
	5.7.30		<p>Performance Test Methods: The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR Section 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least one hour. [40 CFR 60.4244(c), Minn. R. 7011.2310]</p>
	5.7.31		<p>NOx Compliance Demonstration: The Permittee must determine compliance with the nitrogen oxides (NOx) mass per unit output emission limit by converting the concentration of NOx in the engine exhaust using Equation 1 of 40 CFR Section 60.4244(d), as shown below:</p> <p>Equation 1: $ER = [Cd \times (1.912 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of NOx in g/HP-hr. Cd = Measured NOx concentration in parts per million by volume (ppmv).</p>

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			<p>1.912×10^{-3} = Conversion constant for ppm NOx to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, horsepower-hour (HP-hr). [40 CFR 60.4244(d), Minn. R. 7011.2310]</p>
	5.7.32		<p>CO Compliance Demonstration: The Permittee must determine compliance with the CO mass per unit output emission limit by converting the concentration of CO in the engine exhaust using Equation 2 of 40 CFR Section 60.4244(e), as shown below:</p> <p>Equation 2: $ER = [Cd \times (1.164 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of CO in g/HP-hr. Cd = Measured CO concentration in ppmv. 1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(e), Minn. R. 7011.2310]</p>
	5.7.33		<p>VOC Compliance Demonstration: The Permittee must determine compliance with the VOC mass per unit output emission limit by converting the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR Section 60.4244(f), as shown below. When calculating emissions of VOC for the purposes of 40 CFR pt. 60, subp. JJJ, the Permittee shall not include emissions of formaldehyde.</p> <p>Equation 3: $ER = [Cd \times (1.833 \times 10^{-3}) \times Q \times T] / \text{HP-hr}$</p> <p>Where: ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius. Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis. T = Time of test run, in hours. HP-hr = Brake work of the engine, in HP-hr. [40 CFR 60.4244(f), Minn. R. 7011.2310]</p>

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	5.7.34		<p>VOC Alternative Compliance Demonstration: If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then the Permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR Section 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR Section 60.4244(g).</p> <p>Equation 4: $RF_i = C_{Mi} / CA_i$</p> <p>Where: RF_i = Response factor of compound i when measured with EPA Method 25A. C_{Mi} = Measured concentration of compound i in ppmv as carbon. CA_i = True concentration of compound i in ppmv as carbon.</p> <p>Equation 5: $C_{icorr} = RF_i \times C_{imeas}$</p> <p>Where: C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon. C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.</p> <p>Equation 6: $C_{Peq} = 0.6098 \times C_{icorr}$</p> <p>Where: C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM. [40 CFR 60.4244(g), Minn. R. 7011.2310]</p>
	5.7.35		<p>Recordkeeping: The Permittee shall keep records of the following information:</p> <ol style="list-style-type: none"> 1. All notifications submitted to comply with 40 CFR pt. 60, sub. JJJ and all documentation supporting any notification. 2. Maintenance conducted on the engine. 3. Documentation that the engine meets the emission

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			standards. [40 CFR 60.4245(a), Minn. R. 7011.2310]
	5.7.36		The Permittee shall submit an initial notification as required in 40 CFR Section 60.7(a)(1). The notification must include the information listed below: (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), Minn. R. 7011.2310]
	5.7.37		General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. JJJ, Table 3. [40 CFR 60.4246, Minn. R. 7011.2310]
	5.7.38		Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c), Minn. R. 7011.0050, Minn. R. 7017.2015]
	5.7.39		Circumvention: No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. [40 CFR 60.12, Minn. R. 7011.0050]
EQUI 6	EU006	Heater	
	5.8.1		Total Particulate Matter <= 0.40 pounds per million Btu heat input. The potential to emit from the unit is 0.0075 pounds per million Btu due to equipment design and allowable fuel. [Minn. R. 7011.0515, subp. 1]
	5.8.2		Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 1]
	5.8.3		Fuel Usage: Natural gas only. [Minn. R. 7005.0100, subp. 35a]

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EQUI 7	EU007	Generator	
	5.9.1		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.9.2		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 pounds per million Btu heat input due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.9.3		Fuel type: No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 80.510(b) only, by design. [Minn. R. 7005.0100, subp. 35a]
	5.9.4		Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
	5.9.5		The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
	5.9.6		The Permittee shall comply with the Best Management Practices for Engines listed in Appendix C of this permit. [Minn. R. 7007.0800, subp. 2]
	5.9.7		EQUI7 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI7. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.9.8		The Permittee is the owner and operator of EQUI7 which is a new 450 kw emergency stationary compression ignition (CI) internal combustion engine (ICE) with a displacement of less than 10 liters per cylinder, and is not a fire pump engine. The Permittee shall comply with the emissions standards for new nonroad CI engines under 40 CFR Section 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. The Permittee may not install or import a stationary CI ICE that does not meet the applicable requirements for 2007 model year or later engines. [40 CFR 60.4205(b), 40 CFR 60.4208(a), 40 CFR 60.4208(h), Minn. R. 7011.2305]
	5.9.9		NMHC+NOx <= 4.0 grams per kilowatt-hour. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.112(a), Minn. R. 7011.2305]
	5.9.10		Carbon Monoxide <= 3.5 grams per kilowatt-hour. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.112(a), Minn. R. 7011.2305]

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	5.9.11		Total Particulate Matter <= 0.20 grams per kilowatt-hour. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.112(a), Minn. R. 7011.2305]
	5.9.12		Opacity <= 20 percent during the acceleration mode. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.113(a)(1), Minn. R. 7011.2305]
	5.9.13		Opacity <= 15 percent during the lugging mode. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.113(a)(2), Minn. R. 7011.2305]
	5.9.14		Opacity <= 50 percent during the peaks in either the acceleration or lugging modes. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.113(a)(3), Minn. R. 7011.2305]
	5.9.15		The Permittee shall operate and maintain EQUI7 to achieve the emission standards as required in 40 CFR Section 60.4205 over the entire life of the engine. [40 CFR 60.4206, Minn. R. 7011.2305]
	5.9.16		The Permittee shall use diesel fuel that meets the requirements of 40 CFR Section 80.510(b) for nonroad diesel fuel: (1) Sulfur content: (i) 15 ppm maximum for NR diesel fuel, or (ii) 500 ppm maximum for LM diesel fuel; (2) Cetane index or aromatic content: (i) a minimum cetane index of 40, or (ii) a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b), Minn. R. 7011.2305]
	5.9.17		The Permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a), Minn. R. 7011.2305]
	5.9.18		The Permittee shall do all of the following: (1) Operate and maintain EQUI7 according to the manufacturer's emission-related written instructions; (2) Change only those emission-related settings that are permitted by the manufacturer; and (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a), Minn. R. 7011.2305]
	5.9.19		The Permittee shall comply with the emission standards specified in 40 CFR Section 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR Section 60.4205(b) as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c), Minn. R. 7011.2305]
	5.9.20		EQUI7 shall meet the definition of "Emergency stationary

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			<p>internal combustion engine" by meeting all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in Section 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in Section 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.</p> <p>(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.</p> <p>(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in Section 60.4211(f).</p> <p>(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in Section 60.4211(f)(3)(i). [40 CFR 60.4219]</p>
	5.9.21		<p>EQUI7 must be operated according to the following requirements, or the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII, and will be required to meet all Subpart IIII requirements for non-emergency engines.</p> <p>(1) There is no time limit on engine use in emergency situations.</p> <p>(2) The engine may be operated for the purpose of maintenance checks and readiness testing for up to 100 hours per year, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not require if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing beyond 100 hours per calendar year.</p> <p>(3) The engine may be operated for an additional 50 hours per year in non-emergency situations. The 50 hours of operation in non-emergency situations are</p>

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			counted as part of the 100 hours per calendar year for maintenance and readiness testing. Except as provided in 40 CFR Section 60.4211(f)(3)(i), the 50 hours cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f), Minn. R. 7011.2305]
	5.9.22		<p>The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;</p> <p>(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region;</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines;</p> <p>(D) The power is provided only to the Permittee or to support the local transmission and distribution system;</p> <p>(E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4211(f)(3)(i)(A)-(E), Minn. R. 7011.2305]</p>
	5.9.23		The Permittee is not required to submit an initial notification. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year in 40 CFR pt. 60, subp. IIII, Table 5 the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b), Minn. R. 7011.2305]
	5.9.24		General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. IIII, Table 8. [40 CFR 60.4218, Minn. R. 7011.2305]
	5.9.25		Circumvention: The Permittee shall not build, erect,

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			install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12, Minn. R. 7011.0050]
EQUI 8	EU008	Fire Pump	
	5.10.1		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.10.2		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 pounds per million Btu heat input due to equipment design and allowable fuel. [Minn. R. 7011.2300, subp. 2]
	5.10.3		Fuel type: No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 80.510(b) by design. [Minn. R. 7005.0100, subp. 35a]
	5.10.4		Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
	5.10.5		The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
	5.10.6		The Permittee shall comply with the Best Management Practices for Engines listed in Appendix C of this permit. [Minn. R. 7007.0800, subp. 2]
	5.10.7		EQUI8 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is an area source as defined at 40 CFR Section 63.2. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI8. [40 CFR 63.6590(c)(1), Minn. R. 7011.8150]
	5.10.8		The Permittee is the owner and operator of EQUI8 which is a fire pump engine. The Permittee shall comply with the emissions standards for 2010+ model years in 40 CFR, subp. IIII, Table 4, for all pollutants. Except if the engine has a rated speed greater than 2,650 revolutions per minute (rpm) and is model year 2010-2012 the Permittee may comply with the emission limitation for 2009 model year engines. [40 CFR 60.4205(c), Minn. R. 7011.2305]

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	5.10.9		The Permittee shall limit NMHC+NOx <= 4.0 grams per kilowatt-hour. [40 CFR 60 subpart IIII Table 4, Minn. R. 7011.2305]
	5.10.10		The Permittee shall limit Total Particulate Matter <= 0.3 grams per kilowatt-hour. [40 CFR 60 subpart IIII Table 4, Minn. R. 7011.2305]
	5.10.11		The Permittee shall operate and maintain EQUI8 to achieve the emission standards as required in 40 CFR Section 60.4205 over the entire life of the engine. [40 CFR 60.4206, Minn. R. 7011.2305]
	5.10.12		<p>The Permittee shall use diesel fuel that meets the requirements of 40 CFR Section 80.510(b) for nonroad diesel fuel:</p> <p>(1) Sulfur content: (i) 15 ppm maximum for NR diesel fuel, or (ii) 500 ppm maximum for LM diesel fuel; (2) Cetane index or aromatic content: (i) a minimum cetane index of 40, or (ii) a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b), Minn. R. 7011.2305]</p>
	5.10.13		<p>The Permittee shall do all of the following:</p> <p>(1) Operate and maintain EQUI8 according to the manufacturer's emission-related written instructions; (2) Change only those emission-related settings that are permitted by the manufacturer; and (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a), Minn. R. 7011.2305]</p>
	5.10.14		The Permittee shall comply with the emission standards specified in 40 CFR Section 60.4205(c) by purchasing an engine certified to the emission standards in 40 CFR Section 60.4205(c) as applicable, for the National Fire Protection Association for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c), Minn. R. 7011.2305]
	5.10.15		EQUI8 shall meet the definition of "Emergency stationary internal combustion engine" by meeting all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in 40 CFR Section 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in 40 Section 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

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			<p>(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.</p> <p>(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in Section 60.4211(f).</p> <p>(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in Section 60.4211(f)(3)(i). [40 CFR 60.4219]</p>
	5.10.16		<p>EQUI8 must be operated according to the following requirements, or the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII, and will be required to meet all Subpart IIII requirements for non-emergency engines.</p> <p>(1) There is no time limit on engine use in emergency situations.</p> <p>(2) The engine may be operated for the purpose of maintenance checks and readiness testing for up to 100 hours per year, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not require if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing beyond 100 hours per calendar year.</p> <p>(3) The engine may be operated for an additional 50 hours per year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and readiness testing. Except as provided in 40 CFR Section 60.4211(f)(3)(i) below, the 50 hours cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f), Minn. R. 7011.2305]</p>
	5.10.17		The 50 hours per year for non-emergency situations can

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			<p>be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;</p> <p>(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region;</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines;</p> <p>(D) The power is provided only to the Permittee or to support the local transmission and distribution system;</p> <p>(E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4211(f)(3)(i)(A)-(E), Minn. R. 7011.2305]</p>
	5.10.18		<p>The Permittee is not required to submit an initial notification. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year in 40 CFR pt. 60, subp. IIII, Table 5 the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b), Minn. R. 7011.2305]</p>
	5.10.19		<p>General Provisions: The Permittee shall comply with the applicable General Provisions in 40 CFR Section 60.1 through 60.19, as shown in 40 CFR pt. 60, subp. IIII, Table 8. [40 CFR 60.4218, Minn. R. 7011.2305]</p>
	5.10.20		<p>Circumvention: The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is</p>

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			based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12, Minn. R. 7011.0050]
TREA1		SCR for Engine 1	
	5.11.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI1 to TREA1 whenever EQUI1 operates, and operate and maintain TREA1 at all times that any emissions are vented to TREA1. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.11.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Nitrogen Oxides \geq 95 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.11.3		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the NOx emitted during that time shall be considered uncontrolled until the average temperature is within the permitted range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.11.4		Urea Flow \geq 5.3 and \leq 8.5 gallons per hour 3-hour rolling average at the control device inlet unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance

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			letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average urea flow rate is outside the flow range, the NOx emitted during that time shall be considered uncontrolled until the average urea flow rate is within the urea flow range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(ii) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.11.5		The Permittee shall operate and maintain TREA1 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.11.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the SCR. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.11.7		Urea Flow Rate Monitoring: The Permittee shall maintain and operate a urea flow rate monitoring device that continuously indicates and records the urea flow rate of the SCR. The monitoring device shall have a margin of error of no more than +/- 2.0 percent of the flow rate being measured. The recording device shall also calculate the three-hour rolling average urea flow rate. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0200, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.11.8		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device, and the urea flow rate monitoring device at least once each operating day to verify that they are working and recording properly. The Permittee shall maintain a written record of the daily verifications with the time and

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			date of each verification. Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.11.9		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit, and install and maintain the necessary monitoring equipment for measuring and recording urea flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.11.10		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.11.11		Annual Calibration: The Permittee shall calibrate the temperature monitor, and urea flow gauges at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.11.12		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the catalyst bed, electrical components, and urea pump. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.11.13		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.11.14		Corrective Actions: If the temperature or urea flow rate is outside the range specified by this permit or if the SCR or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions

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			shall return the temperature and urea flow rate to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the SCR. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA2		SCR for Engine 2	
	5.12.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI2 to TREA2 whenever EQUI2 operates, and operate and maintain TREA2 at all times that any emissions are vented to TREA2. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.12.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Nitrogen Oxides \geq 95 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.12.3		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the NOx emitted during that time shall be considered uncontrolled until the average temperature is within the permitted range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]

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	5.12.4		<p>Urea Flow \geq 5.3 and \leq 8.5 gallons per hour 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average urea flow rate is outside the flow range, the NOx emitted during that time shall be considered uncontrolled until the average urea flow rate is within the urea flow range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(ii) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]</p>
	5.12.5		<p>The Permittee shall operate and maintain TREA2 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]</p>
	5.12.6		<p>Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the SCR. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.12.7		<p>Urea Flow Rate Monitoring: The Permittee shall maintain and operate a urea flow rate monitoring device that continuously indicates and records the urea flow rate of the SCR. The monitoring device shall have a margin of error of no more than +/- 2.0 percent of the flow rate being measured. The recording device shall also calculate the three-hour rolling average urea flow rate. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0200, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40</p>

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			CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.12.8		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device, and the urea flow rate monitoring device at least once each operating day to verify that they are working and recording properly. The Permittee shall maintain a written record of the daily verifications with the time and date of each verification. Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.12.9		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit, and install and maintain the necessary monitoring equipment for measuring and recording urea flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.12.10		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.12.11		Annual Calibration: The Permittee shall calibrate the temperature monitor, and urea flow gauges at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.12.12		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the catalyst bed, electrical components, and urea pump. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.12.13		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written

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			record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.12.14		Corrective Actions: If the temperature or urea flow rate is outside the range specified by this permit or if the SCR or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature and urea flow rate to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the SCR. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA3		SCR for Engine 3	
	5.13.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI3 to TREA3 whenever EQUI3 operates, and operate and maintain TREA3 at all times that any emissions are vented to TREA3. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.13.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Nitrogen Oxides \geq 95 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.13.3		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average

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			<p>temperature is outside the temperature range, the NOx emitted during that time shall be considered uncontrolled until the average temperature is within the permitted range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]</p>
	5.13.4		<p>Urea Flow ≥ 5.3 and ≤ 8.5 gallons per hour 3-hour rolling average, at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average urea flow rate is outside the flow range, the NOx emitted during that time shall be considered uncontrolled until the average urea flow rate is within the urea flow range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(ii) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]</p>
	5.13.5		<p>The Permittee shall operate and maintain TREA3 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]</p>
	5.13.6		<p>Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the SCR. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	5.13.7		<p>Urea Flow Rate Monitoring: The Permittee shall maintain and operate a urea flow rate monitoring device that continuously indicates and records the urea flow rate of</p>

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			the SCR. The monitoring device shall have a margin of error of no more than +/- 2.0 percent of the flow rate being measured. The recording device shall also calculate the three-hour rolling average urea flow rate. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0200, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.13.8		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device, and the urea flow rate monitoring device at least once each operating day to verify that they are working and recording properly. The Permittee shall maintain a written record of the daily verifications with the time and date of each verification. Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.13.9		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit, and install and maintain the necessary monitoring equipment for measuring and recording urea flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.13.10		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.13.11		Annual Calibration: The Permittee shall calibrate the temperature monitor, and urea flow gauges at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.13.12		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the catalyst bed, electrical components, and urea pump. The Permittee shall

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			maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.13.13		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.13.14		Corrective Actions: If the temperature or urea flow rate is outside the range specified by this permit or if the SCR or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature and urea flow rate to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the SCR. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA4		SCR for Engine 4	
	5.14.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI4 to TREA4 whenever EQUI4 operates, and operate and maintain TREA4 at all times that any emissions are vented to TREA4. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.14.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Nitrogen Oxides \geq 95 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.14.3		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R.

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			7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the NOx emitted during that time shall be considered uncontrolled until the average temperature is within the permitted range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.14.4		Urea Flow ≥ 5.3 and ≤ 8.5 gallons per hour 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average urea flow rate is outside the flow range, the NOx emitted during that time shall be considered uncontrolled until the average urea flow rate is within the urea flow range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(ii) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.14.5		The Permittee shall operate and maintain TREA4 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.14.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the SCR. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations

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			as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.14.7		Urea Flow Rate Monitoring: The Permittee shall maintain and operate a urea flow rate monitoring device that continuously indicates and records the urea flow rate of the SCR. The monitoring device shall have a margin of error of no more than +/- 2.0 percent of the flow rate being measured. The recording device shall also calculate the three-hour rolling average urea flow rate. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0200, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.14.8		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device, and the urea flow rate monitoring device at least once each operating day to verify that they are working and recording properly. The Permittee shall maintain a written record of the daily verifications with the time and date of each verification. Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.14.9		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit, and install and maintain the necessary monitoring equipment for measuring and recording urea flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.14.10		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.14.11		Annual Calibration: The Permittee shall calibrate the temperature monitor, and urea flow gauges at least once every 12 months and shall maintain a written record of

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			the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.14.12		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the catalyst bed, electrical components, and urea pump. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.14.13		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.14.14		Corrective Actions: If the temperature or urea flow rate is outside the range specified by this permit or if the SCR or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature and urea flow rate to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the SCR. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA5		SCR for Engine 5	
	5.15.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI5 to TREA5 whenever EQUI5 operates, and operate and maintain TREA5 at all times that any emissions are vented to TREA5. The Permittee shall document periods of non-operation of the control equipment. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.15.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control

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			efficiency for Nitrogen Oxides \geq 95 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.15.3		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the NOx emitted during that time shall be considered uncontrolled until the average temperature is within the permitted range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.15.4		Urea Flow \geq 5.3 and \leq 8.5 gallons per hour 3-hour rolling average at the control device inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average urea flow rate is outside the flow range, the NOx emitted during that time shall be considered uncontrolled until the average urea flow rate is within the urea flow range. This shall be reported as a deviation. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(ii) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.15.5		The Permittee shall operate and maintain TREA5 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.15.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that

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			continuously indicates and records the combustion chamber temperature of the SCR. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.15.7		Urea Flow Rate Monitoring: The Permittee shall maintain and operate a urea flow rate monitoring device that continuously indicates and records the urea flow rate of the SCR. The monitoring device shall have a margin of error of no more than +/- 2.0 percent of the flow rate being measured. The recording device shall also calculate the three-hour rolling average urea flow rate. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0200, Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.15.8		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device, and the urea flow rate monitoring device at least once each operating day to verify that they are working and recording properly. The Permittee shall maintain a written record of the daily verifications with the time and date of each verification. Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.15.9		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit, and install and maintain the necessary monitoring equipment for measuring and recording urea flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.15.10		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average

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			temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.15.11		Annual Calibration: The Permittee shall calibrate the temperature monitor, and urea flow gauges at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.15.12		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the catalyst bed, electrical components, and urea pump. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.15.13		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.15.14		Corrective Actions: If the temperature or urea flow rate is outside the range specified by this permit or if the SCR or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature and urea flow rate to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the SCR. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA6		CO Catalyst for Engine 1	
	5.16.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI1 and TREA1 to TREA6 whenever EQUI1 operates, and operate and

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			maintain TREA6 at all times that any emissions are vented to TREA6. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.16.2		The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 70 percent control efficiency. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.16.3		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 93 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.16.4		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the oxidation catalyst inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the VOC, acetaldehyde, acrolein, formaldehyde, and methanol emitted during that time shall be considered uncontrolled until the average temperature is within the permitted temperature range. This shall be reported as a deviation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.16.5		The Permittee shall operate and maintain the oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.16.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that

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			continuously indicates and records the temperature at the inlet of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.16.7		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.16.8		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.16.9		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.16.10		Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.16.11		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components,

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			including but not limited to the refractory and the catalyst bed. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.16.12		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.16.13		Corrective Actions: If the temperature is outside the range specified by this permit or if the oxidation catalyst or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA7		CO Catalyst for Engine 2	
	5.17.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI2 and TREA2 to TREA7 whenever EQUI2 operates, and operate and maintain TREA7 at all times that any emissions are vented to TREA7. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.17.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 70 percent control efficiency. [To avoid major source under 40 CFR

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			70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.17.3		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 93 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.17.4		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the oxidation catalyst inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the VOC, acetaldehyde, acrolein, formaldehyde, and methanol emitted during that time shall be considered uncontrolled until the average temperature is within the permitted temperature range. This shall be reported as a deviation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.17.5		The Permittee shall operate and maintain the oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.17.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the temperature at the inlet of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To

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			avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.17.7		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.17.8		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.17.9		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.17.10		Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.17.11		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory and the catalyst bed. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.17.12		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R.

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			7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.17.13		Corrective Actions: If the temperature is outside the range specified by this permit or if the oxidation catalyst or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA8		CO Catalyst for Engine 3	
	5.18.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI3 and TREA3 to TREA8 whenever EQUI3 operates, and operate and maintain TREA8 at all times that any emissions are vented to TREA8. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.18.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 70 percent control efficiency. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.18.3		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 93 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.18.4		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the oxidation catalyst inlet, unless a new range is required to be set pursuant to Minn. R.

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			7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the VOC, acetaldehyde, acrolein, formaldehyde, and methanol emitted during that time shall be considered uncontrolled until the average temperature is within the permitted temperature range. This shall be reported as a deviation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.18.5		The Permittee shall operate and maintain the oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.18.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the temperature at the inlet of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.18.7		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]

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	5.18.8		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.18.9		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.18.10		Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.18.11		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory and the catalyst bed. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.18.12		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.18.13		Corrective Actions: If the temperature is outside the range specified by this permit or if the oxidation catalyst or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective

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			action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA9		CO Catalyst for Engine 4	
	5.19.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI4 and TREA4 to TREA9 whenever EQUI4 operates, and operate and maintain TREA9 at all times that any emissions are vented to TREA9. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.19.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 70 percent control efficiency. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.19.3		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 93 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.19.4		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the oxidation catalyst inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the VOC, acetaldehyde, acrolein, formaldehyde, and methanol emitted during that time shall be considered uncontrolled until the average temperature is within the

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			permitted temperature range. This shall be reported as a deviation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.19.5		The Permittee shall operate and maintain the oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.19.6		Temperature Monitoring: The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the temperature at the inlet of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.19.7		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.19.8		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.19.9		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I

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			Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.19.10		Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.19.11		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory and the catalyst bed. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.19.12		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.19.13		Corrective Actions: If the temperature is outside the range specified by this permit or if the oxidation catalyst or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
TREA10		CO Catalyst for Engine 5	
	5.20.1		Unless otherwise authorized by this permit, the Permittee shall vent emissions from EQUI5 and TREA5 to

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			TREA10 whenever EQUI5 operates, and operate and maintain TREA10 at all times that any emissions are vented to TREA10. The Permittee shall document periods of non-operation of the control equipment. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.20.2		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds \geq 70 percent control efficiency. [To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.20.3		The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Carbon Monoxide \geq 93 percent control efficiency. [Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.20.4		Temperature \geq 525 and \leq 900 degrees Fahrenheit 3-hour rolling average at the oxidation catalyst inlet, unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set it will be based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The new range is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is outside the temperature range, the VOC, acetaldehyde, acrolein, formaldehyde, and methanol emitted during that time shall be considered uncontrolled until the average temperature is within the permitted temperature range. This shall be reported as a deviation. [Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 14]
	5.20.5		The Permittee shall operate and maintain the oxidation catalyst in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
	5.20.6		Temperature Monitoring: The Permittee shall maintain

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			and operate a thermocouple monitoring device that continuously indicates and records the temperature at the inlet of the oxidation catalyst. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.20.7		Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.20.8		Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required. [Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subps. 4-5]
	5.20.9		The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	5.20.10		Annual Calibration: The Permittee shall calibrate the temperature monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.20.11		Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control

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			equipment internal and external system components, including but not limited to the refractory and the catalyst bed. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.20.12		Annual Inspection: At least once per calendar year, the Permittee shall conduct an internal inspection of the control device that includes all operating systems of the control device. The Permittee shall maintain a written record of the inspection and any action resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
	5.20.13		Corrective Actions: If the temperature is outside the range specified by this permit or if the oxidation catalyst or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the oxidation catalyst. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5, Minn. R. 7011.7000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]

6. Submittal/action requirements

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

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
TFAC 1	10901028	Rochester Public Utilities Westside Energy Station	
	6.1.1		The Permittee shall submit a semiannual deviations report : Due semiannually, by the 30th of January and July The first semiannual report submitted by the Permittee shall cover the

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			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. If no deviations have occurred, the Permittee shall submit the report stating no deviations. [Minn. R. 7007.0800, subp. 6(A)(2)]
	6.1.2		The Permittee shall submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). The Permittee shall submit this to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year. [Minn. R. 7007.0800, subp. 6(C)]
EQUI 1	EU001	Engine 1	
	6.2.1		<p>The Permittee shall submit a notification of date construction began : Due 30 calendar days after Date of Construction Start. The Permittee shall include the name and number of each unit and the date construction of each unit began. The notification must also include the following information:</p> <ul style="list-style-type: none"> (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), 40 CFR 60.7(a)(1), Minn. R. 7011.0050, Minn. R. 7019.0100, subp. 1]
	6.2.2		The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]
	6.2.3		<p>Nitrogen Oxides : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure NOx emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	6.2.4		<p>Nitrogen Oxides : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for NOx emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.5		<p>Volatile Organic Compounds : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure VOC emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	6.2.6		<p>70.2 & Minn. R. 7007.0200]</p> <p>Volatile Organic Compounds : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for VOC emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.7		<p>Carbon Monoxide : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure CO emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i)</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.2.8		<p>Carbon Monoxide : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for CO emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.9		<p>Acrolein : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acrolein emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.10		Acrolein : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and

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			<p>report the Acrolein emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.2.11		<p>Formaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Formaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.12		<p>Formaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Formaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			<p>not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.2.13		<p>Acetaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acetaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.14		<p>Acetaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acetaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.2.15		Methanol : The Permittee shall conduct an initial performance

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			<p>test : Due 180 calendar days after Initial Startup Date to measure and report the Methanol emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.2.16		<p>Methanol : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Methanol emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.2.17		<p>The Permittee shall submit a performance test report : Due 60 calendar days after Performance Test Date for each initial performance test and subsequent performance test. [40 CFR 60.4245(d), Minn. R. 7011.2310]</p>
EQUI 2	EU002	Engine 2	
	6.3.1		<p>The Permittee shall submit a notification of date construction began : Due 30 calendar days after Date of Construction Start. The Permittee shall include the name and number of each unit and the date construction of each unit began. The notification must also include the following information:</p> <ol style="list-style-type: none"> (1) Name and address of the owner or operator;

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			<p>(2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), 40 CFR 60.7(a)(1), Minn. R. 7011.0050, Minn. R. 7019.0100, subp. 1]</p>
	6.3.2		<p>The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]</p>
	6.3.3		<p>Nitrogen Oxides : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure NOx emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.4		<p>Nitrogen Oxides : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for NOx emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.5		Volatile Organic Compounds : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure VOC emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval. The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.6		Volatile Organic Compounds : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for VOC emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval. The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr).

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			<p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.7		<p>Carbon Monoxide : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure CO emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.8		<p>Carbon Monoxide : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for CO emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr).</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			<p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.9		<p>Acrolein : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acrolein emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.10		<p>Acrolein : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acrolein emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R.

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			7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.11		<p>Formaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Formaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.12		<p>Formaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Formaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.13		<p>Acetaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acetaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source</p>

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			under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.14		<p>Acetaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acetaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.15		<p>Methanol : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Methanol emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.3.16		<p>Methanol : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Methanol emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference</p>

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			<p>Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.3.17		<p>The Permittee shall submit a performance test report : Due 60 calendar days after Performance Test Date for each initial performance test and subsequent performance test. [40 CFR 60.4245(d), Minn. R. 7011.2310]</p>
EQUI 3	EU003	Engine 3	
	6.4.1		<p>The Permittee shall submit a notification of date construction began : Due 30 calendar days after Date of Construction Start. The Permittee shall include the name and number of each unit and the date construction of each unit began. The notification must also include the following information:</p> <ol style="list-style-type: none"> (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), 40 CFR 60.7(a)(1), Minn. R. 7011.0050, Minn. R. 7019.0100, subp. 1]
	6.4.2		<p>The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]</p>
	6.4.3		<p>Nitrogen Oxides : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure NOx emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p>

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			<p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.4		<p>Nitrogen Oxides : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for NOx emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.4.5		<p>Volatile Organic Compounds : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure VOC emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p>

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			<p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.6		<p>Volatile Organic Compounds : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for VOC emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.4.7		<p>Carbon Monoxide : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure CO emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the</p>

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			<p>performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.8		<p>Carbon Monoxide : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for CO emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.4.9		<p>Acrolein : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acrolein emission rate in units of lb/hour.</p>

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			<p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.10		<p>Acrolein : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acrolein emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.11		<p>Formaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Formaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.12		<p>Formaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Formaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be</p>

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			<p>performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.4.13		<p>Acetaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acetaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.14		<p>Acetaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acetaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency

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			<p>Plan; or</p> <p>3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.15		<p>Methanol : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Methanol emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.4.16		<p>Methanol : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Methanol emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.4.17		<p>The Permittee shall submit a performance test report : Due 60 calendar days after Performance Test Date for each initial performance test and subsequent performance test. [40 CFR 60.4245(d), Minn. R. 7011.2310]</p>

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EQUI 4	EU004	Engine 4	
	6.5.1		<p>The Permittee shall submit a notification of date construction began : Due 30 calendar days after Date of Construction Start. The Permittee shall include the name and number of each unit and the date construction of each unit began. The notification must also include the following information:</p> <p>(1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), 40 CFR 60.7(a)(1), Minn. R. 7011.0050, Minn. R. 7019.0100, subp. 1]</p>
	6.5.2		<p>The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]</p>
	6.5.3		<p>Nitrogen Oxides : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure NOx emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.4		<p>Nitrogen Oxides : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for NOx emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244</p>

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			<p>and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.5.5		<p>Volatile Organic Compounds : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure VOC emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.6		<p>Volatile Organic Compounds : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for VOC emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing</p>

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			<p>methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.5.7		<p>Carbon Monoxide : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure CO emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.8		<p>Carbon Monoxide : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for CO emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p>

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			<p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.9		<p>Acrolein : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acrolein emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.10		<p>Acrolein : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acrolein emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance</p>

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			<p>test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.5.11		<p>Formaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Formaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.12		<p>Formaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Formaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]

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	6.5.13		<p>Acetaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acetaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.14		<p>Acetaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acetaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.5.15		<p>Methanol : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Methanol emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.5.16		<p>Methanol : The Permittee shall conduct a performance test :</p>

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			<p>Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Methanol emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.5.17		<p>The Permittee shall submit a performance test report : Due 60 calendar days after Performance Test Date for each initial performance test and subsequent performance test. [40 CFR 60.4245(d), Minn. R. 7011.2310]</p>
EQUI 5	EU005	Engine 5	
	6.6.1		<p>The Permittee shall submit a notification of date construction began : Due 30 calendar days after Date of Construction Start. The Permittee shall include the name and number of each unit and the date construction of each unit began. The notification must also include the following information:</p> <ol style="list-style-type: none"> (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c), 40 CFR 60.7(a)(1), Minn. R. 7011.0050, Minn. R. 7019.0100, subp. 1]
	6.6.2		<p>The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a.</p>

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6.6.3			<p>[Minn. R. 7007.0800, subp. 16(L)]</p> <p>Nitrogen Oxides : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure NOx emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
6.6.4			<p>Nitrogen Oxides : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for NOx emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the NOx g/HP-hr limit (less than or equal to 1.0 g/HP-hr or less than or equal to 82 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the NOx lb/hr limit (less than or equal to 1.24 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major

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	6.6.5		<p>source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p> <p>Volatile Organic Compounds : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure VOC emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.6		<p>Volatile Organic Compounds : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for VOC emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the VOC g/HP-hr limit (less than or equal to 0.70 g/HP-hr or less than or equal to 60 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the VOC lb/hr limit (less than or equal to 2.50 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310,</p>

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			Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.7		<p>Carbon Monoxide : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure CO emissions. The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr). [40 CFR 60.4243(b)(2)(ii), 40 CFR 60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.8		<p>Carbon Monoxide : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to determine compliance for CO emissions. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall comply with the performance testing methods and procedures specified in 40 CFR Section 60.4244 and Table 2 to 40 CFR pt. 60, subp. JJJ, or other method approved by MPCA in the performance test plan approval.</p> <p>The performance test shall determine compliance with the CO g/HP-hr limit (less than or equal to 2.0 g/HP-hr or less than or equal to 270 ppmvd at 15% oxygen) under 40 CFR pt. 60, subp. JJJ and the CO lb/hr limit (less than or equal to 2.52 lb/hr).</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [40 CFR 60.4243(b)(2)(ii), 40 CFR

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			60.8(a), 40 CFR pt. 60, subp. JJJ(Table 2), Minn. R. 7011.2310, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.9		<p>Acrolein : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acrolein emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.10		<p>Acrolein : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acrolein emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.11		<p>Formaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Formaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn.</p>

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			R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.12		<p>Formaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Formaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required: 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.13		<p>Acetaldehyde : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Acetaldehyde emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.14		<p>Acetaldehyde : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Acetaldehyde emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			<p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.15		<p>Methanol : The Permittee shall conduct an initial performance test : Due 180 calendar days after Initial Startup Date to measure and report the Methanol emission rate in units of lb/hour.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
	6.6.16		<p>Methanol : The Permittee shall conduct a performance test : Due after Initial Performance Test Date every 36 months or every 8760 operating hours, whichever comes first, to measure and report the Methanol emission rate in units of lb/hour. Each performance test date starts a new 36 calendar months or 8760 operating hours period for when testing shall be performed. The Permittee shall not exceed 36 calendar months or 8760 operating hours, whichever comes first, between tests.</p> <p>The performance test shall be conducted using EPA Reference Method 18 or 320, or other method approved by the MPCA in the performance test plan approval.</p> <p>Testing conducted during the 60 days prior to the performance test due date satisfies the performance test due date, and will not reset the test due date for future testing as required:</p> <ol style="list-style-type: none"> 1) by this permit; 2) by the most recently approved Performance Test Frequency Plan; or 3) within a Notice of Compliance letter. Testing conducted more than two months prior to the performance test due date

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
			satisfies this test due date requirement and will reset the performance test due date. [Minn. R. 7011.7000, Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
	6.6.17		The Permittee shall submit a performance test report : Due 60 calendar days after Performance Test Date for each initial performance test and subsequent performance test. [40 CFR 60.4245(d), Minn. R. 7011.2310]
EQUI 7	EU007	Generator	
	6.7.1		The Permittee shall submit a notification of the date construction began : Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item, manufacturer, model number, serial number, and the date construction began. [Minn. R. 7007.0800, subp. 16(L)]
	6.7.2		The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item, and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]
EQUI 8	EU008	Fire Pump	
	6.8.1		The Permittee shall submit a notification of the date construction began : Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item, manufacturer, model number, serial number, and the date construction began. [Minn. R. 7007.0800, subp. 16(L)]
	6.8.2		The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item, and the date of startup. Startup is defined in Minn. R. 7007.0500, subp. 42a. [Minn. R. 7007.0800, subp. 16(L)]

7. Appendices

Appendix A. Insignificant Activities and General Applicable Requirements

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

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(E)(2)	<p>Nonhazardous air pollutant VOC storage tanks with total capacity not more than 10,000 gallons meeting certain vapor pressure requirements.</p> <p>The facility will have the following tanks that qualify as insignificant activities under this subpart:</p> <ul style="list-style-type: none"> • Urea tank • Clean Lube Oil Tank – 5,200 gal • Used Lube Oil Tank – 1,800 gal • Service Lube Oil Tank – 1,800 gal • Black Start Generator Diesel Tank – 300 gal • Maintenance water tank (glycol/water) – 1,800 gal 	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Appendix B. Parameters Used in Air Quality Modeling

The table below lists the modeling parameters. The parameters are included for reference only as described elsewhere in this permit.

Stack Parameters

EQUI#	STRU#	Pollutant	Averaging Time	Release Type	X1 (m)	Y1 (m)	Base Elev (m)	Emissions (lb/hr)	Emissions (g/sec)	Height (m)	Exit Temp (K)	Exit Vel (m/s)	Diam (m)	Flow Rate (ACFM)
EQUI1	SV001	NO2	1 hr	Vertical	535670	4876506	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	NO2	1 hr	Vertical	535670	4876504	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	NO2	1 hr	Vertical	535670	4876503	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	NO2	1 hr	Vertical	535670	4876510	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	NO2	1 hr	Vertical	535670	4876508	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	NO2	1 hr	Vertical	535641	4876505	320.6	0.882	0.112	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	NO2	Annual	Vertical	535670	4876506	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	NO2	Annual	Vertical	535670	4876504	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	NO2	Annual	Vertical	535670	4876503	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	NO2	Annual	Vertical	535670	4876510	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	NO2	Annual	Vertical	535670	4876508	320.5	8.020	1.0105	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	NO2	Annual	Vertical	535641	4876505	320.6	0.882	0.112	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	PM10	24-hr	Vertical	535670	4876506	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	PM10	24-hr	Vertical	535670	4876504	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	PM10	24-hr	Vertical	535670	4876503	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	PM10	24-hr	Vertical	535670	4876510	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	PM10	24-hr	Vertical	535670	4876508	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	PM10	24-hr	Vertical	535641	4876505	320.6	0.067	0.0084	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	PM10	Annual	Vertical	535670	4876506	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	PM10	Annual	Vertical	535670	4876504	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	PM10	Annual	Vertical	535670	4876503	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	PM10	Annual	Vertical	535670	4876510	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	PM10	Annual	Vertical	535670	4876508	320.5	1.697	0.2138	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	PM10	Annual	Vertical	535641	4876505	320.6	0.067	0.0084	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	PM2.5	24-hr	Vertical	535670	4876506	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2

EQUI#	STRU#	Pollutant	Averaging Time	Release Type	X1 (m)	Y1 (m)	Base Elev (m)	Emissions (lb/hr)	Emissions (g/sec)	Height (m)	Exit Temp (K)	Exit Vel (m/s)	Diam (m)	Flow Rate (ACFM)
EQUI2	SV002	PM2.5	24-hr	Vertical	535670	4876504	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	PM2.5	24-hr	Vertical	535670	4876503	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	PM2.5	24-hr	Vertical	535670	4876510	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	PM2.5	24-hr	Vertical	535670	4876508	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	PM2.5	24-hr	Vertical	535641	4876505	320.6	0.076	0.0096	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	PM2.5	Annual	Vertical	535670	4876506	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	PM2.5	Annual	Vertical	535670	4876504	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	PM2.5	Annual	Vertical	535670	4876503	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	PM2.5	Annual	Vertical	535670	4876510	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	PM2.5	Annual	Vertical	535670	4876508	320.5	1.782	0.2245	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	PM2.5	Annual	Vertical	535641	4876505	320.6	0.076	0.010	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	CO	1 hr	Vertical	535670	4876506	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	CO	1 hr	Vertical	535670	4876504	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	CO	1 hr	Vertical	535670	4876503	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	CO	1 hr	Vertical	535670	4876510	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	CO	1 hr	Vertical	535670	4876508	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	CO	1 hr	Vertical	535641	4876505	320.6	0.741	0.0934	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	CO	8-hr	Vertical	535670	4876506	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	CO	8-hr	Vertical	535670	4876504	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	CO	8-hr	Vertical	535670	4876503	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	CO	8-hr	Vertical	535670	4876510	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	CO	8-hr	Vertical	535670	4876508	320.5	7.760	0.9777	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	CO	8-hr	Vertical	535641	4876505	320.6	0.741	0.0934	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	SO2	1 hr	Vertical	535670	4876506	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	SO2	1 hr	Vertical	535670	4876504	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	SO2	1 hr	Vertical	535670	4876503	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	SO2	1 hr	Vertical	535670	4876510	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	SO2	1 hr	Vertical	535670	4876508	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	SO2	1 hr	Vertical	535641	4876505	320.6	0.005	0.0007	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	SO2	3-hr	Vertical	535670	4876506	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2

EQUI#	STRU#	Pollutant	Averaging Time	Release Type	X1 (m)	Y1 (m)	Base Elev (m)	Emissions (lb/hr)	Emissions (g/sec)	Height (m)	Exit Temp (K)	Exit Vel (m/s)	Diam (m)	Flow Rate (ACFM)
EQUI2	SV002	SO2	3-hr	Vertical	535670	4876504	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	SO2	3-hr	Vertical	535670	4876503	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	SO2	3-hr	Vertical	535670	4876510	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	SO2	3-hr	Vertical	535670	4876508	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	SO2	3-hr	Vertical	535641	4876505	320.6	0.005	0.0007	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	SO2	24-hr	Vertical	535670	4876506	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	SO2	24-hr	Vertical	535670	4876504	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	SO2	24-hr	Vertical	535670	4876503	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	SO2	24-hr	Vertical	535670	4876510	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	SO2	24-hr	Vertical	535670	4876508	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	SO2	24-hr	Vertical	535641	4876505	320.6	0.005	0.0007	16.764	533.15	9.144	0.366	2,038.4
EQUI1	SV001	SO2	Annual	Vertical	535670	4876506	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI2	SV002	SO2	Annual	Vertical	535670	4876504	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI3	SV003	SO2	Annual	Vertical	535670	4876503	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI4	SV004	SO2	Annual	Vertical	535670	4876510	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI5	SV005	SO2	Annual	Vertical	535670	4876508	320.5	0.047	0.0059	24.384	638.15	25.146	1.201	60,350.2
EQUI6	SV006	SO2	Annual	Vertical	535641	4876505	320.6	0.005	0.0007	16.764	533.15	9.144	0.366	2,038.4

Appendix C. Best Management Practices (BMPs) for Engines

The Permittee has accepted BMPs for operation of the Emergency Black Start Engine (EQUI7) and the Fire Pump (EQUI8) in return for excluding these emission sources from the modeling analysis for permit #10901028-101.

The Permittee shall comply with the following BMPs:

1. Select a generator that operates on "ultra-low" sulfur diesel fuel;
2. Make the test runs as short as allowed by insurance and building code considerations;
3. Test multiple units sequentially, not at the same time; and
4. Defer testing if the AQI or forecasted AQI exceeds 90.