

DRAFT/PROPOSED

AIR EMISSION PERMIT NO. 00300019-003
Total Facility Operating Permit - Reissuance

IS ISSUED TO

CUMMINS POWER GENERATION
1400 73rd Avenue Northeast
Fridley, Anoka County, MN 55432

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

This permit reissuance supersedes Air Emission Permit No. 00300019-002 and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. 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 are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal Permit; Part 70/Limits to Avoid NSR

Operating Permit Issue Date: <issue date>

Expiration Date: <expiration date (5 years from issue date)> – Title I Conditions do not expire.

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

for John Linc Stine
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit -Reissuance	07/27/2011	003
Major Amendment	10/04/2011	003

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

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.

FACILITY DESCRIPTION:

Cummins Power Generation (Permittee or CPG), formerly known as Onan Corporation and Cummins Power Generation, Inc., manufactures electrical generators and controls. Generators are assembled with an internal combustion engine and the final product is tested. The facility includes multiple cells for development and durability testing of the generators. Emissions at Cummins Power Generation are mainly produced from generator testing operations, dip and spray painting, and coating application to generator parts.

This permit action is a reissuance of the part 70 operating permit. This permit revises the 2007 Flex-Cap operating permit reissuance by converting the Flex-Cap requirements to Pre-Cap requirements. This permit also incorporates a major amendment where the Permittee proposed a facility-wide greenhouse gas limit to maintain non-major source status for Prevention of Significant Deterioration (PSD). In addition, this permit adds a limit for particulate matter less than 2.5 microns (PM_{2.5}) to keep the facility non-major under PSD. The permit also authorizes CPG to make changes to engine test cells and stands (GP 001), coating bake ovens (GP 003), and coating application equipment (GP 004) that were already planned under the existing part 70 operating Flex-Cap permit. Changes made at the facility since issuance of the last permit action have also been incorporated into this permit.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility

What to do	Why to do it
This permit establishes limits on the facility to keep it a minor source under New Source Review. The Permittee cannot make any change at the source that would make the source a major source under New Source Review until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
SOURCE-SPECIFIC REQUIREMENTS	hdr
Permit Appendix: This permit contains an appendix as listed in the permit Table of Contents. The modeling parameters in Appendix G are included for reference only as described elsewhere in Table A.	Minn. R. 7007.0800, subp. 2
Lead-containing coating materials prohibited: The Permittee shall not use any lead-containing coating materials.	Minn. R. 7007.0800, subp. 2
All stationary ICE engines purchased and contained within equipment manufactured by the Permittee shall be certified by the EPA.	Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subps. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0100-7009.0080.
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
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
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
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
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
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)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days 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 45 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.</p>	<p>Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2</p>
<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.</p>	<p>Minn. R. 7017.2025, subp. 3</p>
MONITORING REQUIREMENTS	hdr
<p>Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, 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.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
RECORDKEEPING	hdr
<p>Recordkeeping: Retain all records at the stationary source 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 strip-chart 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).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 5(B)</p>
<p>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. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
<p>Equipment Inventory: The Permittee shall maintain a written list of all emission units and control equipment on site. The list shall correlate the units to the numbers used in this permit for EU, GP, and CE. The data on GI-04-R and GI-05B-R in addition to the type of equipment; identification number; installation date; modification, reconstruction, and/or removal; and reference to applicable Standards of Performance for New Stationary Sources (40 CFR pt. 60) and National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63), shall be included in the list.</p> <p>The list shall also contain all fuel combustion insignificant activities.</p>	<p>Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2</p>
<p>Equipment Inventory Updates: The Permittee shall update the list to include any replaced, modified, relocated, or new equipment prior to making any change. The date of construction shall be the date a change was made for replaced, modified, relocated, or new equipment.</p> <p>The Permittee shall update the list for any replaced, modified, relocated, or new fuel combustion insignificant activities.</p>	<p>Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2</p>
REPORTING/SUBMITTALS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<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.</p>	Minn. R. 7019.1000, subp. 3
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	Minn. R. 7019.1000, subp. 2
<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.</p>	Minn. R. 7019.1000, subp. 1
<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
<p>For changes that do not require a permit amendment:</p> <ol style="list-style-type: none"> 1) The Permittee shall submit a Part 1 MACT application within 30 days of startup of any 112(j) affected source. The application shall meet the requirements of 40 CFR Section 63.53(a). 2) The Permittee shall submit a Part 2 MACT application within 90 days of startup of any 112(j) affected source. The application shall meet the requirements of 40 CFR Section 63.53(b). 	40 CFR Section 63.52 (b)(1) and 63.52(e)(1)
<p>Application for Permit Amendment: If you need a permit amendment, submit 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>	Minn. R. 7007.1150 through Minn. R. 7007.1500
<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. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H).</p>	Minn. R. 7007.1400, subp. 1(H)
<p>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.</p>	Minn. R. 7019.3000 - 7019.3100
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	Minn. R. 7002.0005 - 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 001 Test Stands & Cells**Associated Items:** EU 063 40-115kW Engine Test

EU 091 Cell 19

EU 095 Cell 17

EU 099 Cell 15

EU 103 Cell 13

EU 107 Cell 11

EU 111 Cell 9

EU 115 Cell 7

EU 119 Cell 5

EU 120 Cell 1 (Cold Room)

EU 123 Cell 3

EU 136 Cell 30

EU 137 Endurance A & B

EU 151 Cell 23

EU 152 Cell 21

EU 154 Big Test Cell 7

EU 167 Big Test Cell 8

EU 179 Big Test Cell 9

EU 189 Big Test Cell 1

EU 190 Big Test Cell 2

EU 191 Big Test Cell 3

EU 192 Big Test Cell 4

EU 193 Big Test Cell 5

EU 195 Big Test Cell 6

EU 601 Development Cell 133

EU 602 Development Cell 134

EU 603 Development Cell 135

EU 604 Development Cell 136

EU 606 Development Cell 138

EU 607 Development Cell 139

EU 651 Endurance Cell 201

EU 652 Endurance Cell 202

EU 653 Endurance Cell 205

EU 654 Endurance Cell 206

EU 659 Combo Production Test Room

EU 667 High Horsepower Test Facility (HHTF)

EU 671 AMMPS Test Cell 1

EU 672 AMMPS Test Cell 2

EU 673 AMMPS Test Cell 3

EU 675 New Sound Test Cell

EU 676 HHTF outside test site

EU 677 Tech Center outside trailer

EU 678 HH/BEAR Test cell 1

EU 679 HH/BEAR Test cell 2

EU 680 HH/BEAR Test cell 3

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-5**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Associated Items: EU 681 HH/BEAR Test cell 4
 EU 682 AMMPS Test cell 505
 EU 683 AMMPS Test cell 130/other
 EU 684 Tech center test cell 141
 EU 685 Tech center test cell 142
 EU 686 Tech center test cell 143
 EU 687 Tech center test cell 144
 EU 688 ATC Small test cell
 EU 689 West End Outside Testing Pad

What to do	Why to do it
LIMITS AND OPERATIONAL REQUIREMENTS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This limit applies to each individual unit listed in GP 001.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This limit applies to each individual unit listed in GP 001.	Minn. R. 7011.2300, subp. 1
Sulfur Content of Fuel: less than or equal to 0.0015 percent by weight (15 ppm by weight) for diesel fuel.	Minn. R. 7007.0800, subp. 2
Permitted Fuels: diesel fuel, biodiesel, natural gas, liquid propane gas (LPG), JP-8 (military fuel), gasoline, and gasoline-ethanol blends.	Minn. R. 7005.0100, subp. 35a
The Permittee shall operate all stationary RICE in GP 001 test stands and cells using only the type of fuel(s) the engine is certified to use. All other fuels are not permitted to be used in the engine.	Minn. R. 7007.0800, subp. 2
MONITORING AND RECORDKEEPING	hdr
Diesel Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel, either specifying the actual sulfur content in percent by weight or certifying that the sulfur content does not exceed 0.0015 percent (15 ppm) by weight. The Permittee may use the bill of lading for each diesel fuel delivery in lieu of a certification to demonstrate the fuel sulfur content does not exceed 0.0015% by weight.	Minn. R. 7007.0800, subps. 4 & 5
Fuel Usage Recordkeeping: by the last day of each month, the Permittee shall record the monthly usage of each permitted fuel type and calculate emissions from GP 001. Natural gas usage records shall be in million cubic feet (mmcf), and diesel fuel, JP-8, biodiesel, gasoline, gasoline-ethanol blends, and liquid propane gas usage (LPG) shall be in thousand gallons (mgal). Separate emission calculations shall be kept for diesel-fired engines >600 hp and diesel-fired engines 600 hp or less. LPG >25 HP emission factors shall be used for calculating emissions from LPG engines less than or equal to 25 HP until emission factors for LPG engines less than or equal to 25 HP have been approved by the MPCA. JP-8 usage records shall be kept on an equivalent diesel fuel usage basis. Diesel fuel emission factors shall be used for JP-8 emission calculations. This requirement applies to fuels combusted in all reciprocating internal combustion engines including engines tested outdoors.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-6 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Emission Factors for Internal Combustion Engines: The Permittee shall calculate CO2e emissions from internal combustion engines for all fuels using the following emission factors:					Minn. R. 7007.0800, subp. 4
Emission Factors for CO2e (lb/mmBtu)					
High Heat Value (mmBtu/mgal), (Natural gas, mmBtu/mmcf)					
CO2	CH4	N2O	HHV	Fuel	
117	0.0022	0.00022	1,028	Natural Gas	
165	0.0066	0.00132	150	Diesel Fuel >600 HP	
159	0.0066	0.00132	135	JP-8 Fuel	
154	0.0066	0.00132	125	Gasoline, Gasoline-ethanol blends	
139	0.0066	0.00132	92	LPG	
164	0.0066	0.00132	150	Diesel Fuel <600 HP	
162	0.0024	0.00024	128	Biodiesel	
Natural Gas lb/mmcf Diesel Fuel >600 HP lb/mgal Gasoline lb/mgal Pollutant					Minn. R. 7007.0800, subp. 4 (cont.)
393.7 116.5 128.7 CO					
3,233.4 438.4 211.9 NOx					
49.3 13.7 13.7 PM					
49.3 13.7 13.7 PM10					
49.3 13.7 13.7 PM2.5					
0.6 69.2 10.9 SO2					
122.4 12.3 393.9 VOC					
LPG >25 HP lb/mgal Diesel Fuel 600 HP or less lb/mgal Pollutant					Minn. R. 7007.0800, subp. 4 (cont.)
520.5 130.2 CO					
221.1 604.2 NOx					
0.9 42.5 PM					
0.9 42.5 PM10					
0.9 42.5 PM2.5					
0.65 39.7 SO2					
31 49.3 VOC					
Monthly Emission Calculations: by the last day of each month, calculate and record the GP 001 emissions from the previous month of PM, PM2.5, PM10, SO2, NOx, CO, and VOC using the following equation:					Minn. R. 7007.0800, subp. 4 & 5
E = SUM[EFf * Ff]					
where:					
E = emissions of a pollutant					
EFf = fuel-specific emission factor for the pollutant					
Ff = usage of specific fuel during the previous month (mmcf of natural gas; mgal of gasoline, LPG, or diesel fuel)					
Gasoline-ethanol blend emissions shall be calculated using gasoline emission factors, and usage shall be included in gasoline usage. Biodiesel emissions shall be calculated using diesel emission factors, and usage shall be included in diesel fuel usage. JP-8 shall be converted to equivalent diesel fuel usage and included in diesel fuel usage (as required above).					
These emission calculations are used in the compliance demonstration method for the limits in GP 007 (CO2e, CO, NOx, SO2), GP 008 (PM, PM10, PM2.5), and GP 009 (VOC).					

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>Monthly CO₂e Emission Calculations: by the last day of each month, calculate and record the GP 001 emissions from the previous month of CO₂e using the following equation:</p> $\text{CO}_2\text{e} = \text{SUM}[(\text{CO}_2\text{EFf} * \text{Fuel} * \text{HHV} * 1) + (\text{CH}_4\text{EFf} * \text{Fuel} * \text{HHV} * 21) + (\text{N}_2\text{OEFf} * \text{Fuel} * \text{HHV} * 310)]$ <p>where:</p> <p>CO₂e = emissions of carbon dioxide equivalent (lb/month) CO₂EFf = fuel-specific emission factor for carbon dioxide (lb/mmBtu) CH₄EFf = fuel-specific emission factor for methane (lb/mmBtu) N₂OEFf = fuel-specific emission factor for nitrous oxide (lb/mmBtu) Fuel = Mass or volume of fuel combusted in one month (mmcf, mgal) HHV = High heat value of fuel (mmBtu/mgal), (Natural gas, mmBtu/mmcf) 1 = Global warming potential of carbon dioxide 21 = Global warming potential of methane 310 = Global warming potential of nitrous oxide</p>	Minn. R. 7007.0800, subp. 4 & 5
<p>For CO₂e emission calculations, Gasoline-ethanol blend usage shall be included in gasoline usage, biodiesel emissions shall be included in diesel fuel usage and JP-8 shall be converted to equivalent diesel fuel usage and included in diesel fuel usage (as required above).</p> <p>CO₂e emission calculations are used in the compliance demonstration method for the limits in GP 007.</p>	Minn. R. 7007.0800, subp. 4 & 5 (cont.)
<p>All engines and control devices tested in GP 001 test stands and cells shall be configured, operated, and maintained according to the manufacturer's emission-related written instructions, and the Permittee shall change only those emission-related settings that are permitted by the manufacturer.</p>	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-8**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 002 Part 63 Subpart MMMM NESHAP Requirements

Associated Items: EU 155 Big Paint Booth
 EU 164 Class B Paint Booth
 EU 342 Black Primer E-Coat Bath/Tunnel
 EU 343 Black E Coat Cure Oven
 EU 344 Green Topcoat E-Coat Bath/Tunnel
 EU 345 Green E Cure Oven
 EU 660 Alternator Impregnation Station IO-222
 EU 661 Alternator Impregnation Station IO-226
 EU 662 Alternator Impregnation Station IO-232
 EU 663 Alternator Impregnation Station IO-217
 EU 665 Trickle Station IO 180 YSB
 EU 666 Total Enclosure Dry Paint Booth
 EU 668 AMMPS Paint Booth
 EU 669 AMMPS Stencil Booth
 EU 670 AMMPS Paint Cure Oven
 EU 674 Powder Coat Cure Oven

What to do	Why to do it
Refer to GP 003 for additional requirements for bake ovens and to GP 004 for additional requirements for coating application equipment.	hdr
Unless otherwise noted, all equations for 40 CFR pt. 63, subp. MMMM referenced in the requirements of GP 002 can be found in Appendix B of this permit.	Minn. R. 7007.0800, subp. 4 and 5
APPLICABILITY	hdr
The facility applies general use coatings to miscellaneous metal products. The compliance date for 40 CFR Part 63, subpart MMMM for this facility is January 2, 2007. The Permittee must meet the notification requirements in 40 CFR Section 63.3910 according to the dates specified in 40 CFR Section 63.3910 and in 40 CFR pt. 63, subp. A. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of 40 CFR Section 63.3883.	40 CFR Sections 63.3881, 63.3883(b), and (d); Minn. R. 7011.8090
The affected source is the collection of all of the items listed below that are used for surface coating of miscellaneous metal parts and products within each subcategory. (1) All coating operations as defined in Section 63.3981; (2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed; (3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and (4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.	40 CFR Section 63.3882(b); Minn. R. 7011.8090
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
HAPs - Organic: less than or equal to 2.6 lbs/gallon coating solids used during each 12-month compliance period.	40 CFR Section 63.3890(b)(1); Minn. R. 7011.8090
For any coating operation(s) on which the Permittee uses the compliant material option or the emission rate without add-on controls option, the Permittee is not required to meet any operating limits.	40 CFR Section 63.3892(a); Minn. R. 7011.8090
For any coating operation(s) on which the Permittee uses the compliant material option or the emission rate without add-on controls option, the Permittee is not required to meet any work practice standards.	40 CFR Section 63.3893(a); Minn. R. 7011.8090
COMPLIANCE REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee must include all coatings (as defined in 40 CFR Section 63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in 40 CFR section 63.3890 ("HAP emission limit"). To make this determination, the Permittee must use at least one of the three compliance options listed in paragraphs (a) through (c) of 40 CFR Section 63.3891.	40 CFR Section 63.3891; Minn. R. 7011.8090
The Permittee may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. The Permittee may use different compliance options for different coating operations, or at different times on the same coating operation. The Permittee may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, the Permittee may not use different compliance options at the same time on the same coating operation. If the Permittee switches between compliance options for any coating operation or group of coating operations, the Permittee must document this switch as required by 40 CFR Section 63.3930(c), and the Permittee must report it in the next semiannual compliance report listed in Table B of this permit.	40 CFR Section 63.3891; Minn. R. 7011.8090 (cont.)
Emission rate without add-on controls option. The Permittee shall demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the HAP emission limit, calculated as a rolling 12-month emission rate and determined on a monthly basis. The Permittee must meet all the requirements of 40 CFR Sections 63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.	40 CFR Section 63.3891(b); Minn. R. 7011.8090
The Permittee must be in compliance with the emission limitations as specified below: 1) Any coating operation(s) for which the Permittee uses the compliant material option or the emission rate without add-on controls option, as specified in 40 CFR Section 63.3891(a) and (b), must be in compliance with the HAP emission limit at all times. 2) The Permittee must always operate and maintain the affected source according to the provisions in 40 CFR Section 63.6(e)(1)(i).	40 CFR Section 63.3900(a)(1) and (b); Minn. R. 7011.8090
To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to 40 CFR Section 63.3951(a) through (g), must be less than or equal to the HAP emission limit. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in 40 CFR Section 63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. The Permittee must perform the calculations in 40 CFR Section 63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation.	40 CFR Section 63.3952(a); Minn. R. 7011.8090
If the organic HAP emission rate for any 12-month compliance period exceeded the HAP emission limit, this is a deviation from the emission limitation for that compliance period and must be reported as specified in 40 CFR Sections 63.3910(c)(6) and 63.3920(a)(6).	40 CFR Section 63.3952(b); Minn. R. 7011.8090
As part of each semiannual compliance report required by 40 CFR Section 63.3920, the Permittee must identify the coating operation(s) for which the Permittee used the emission rate without add-on controls option. If there were no deviations from the emission limitations, the Permittee must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the HAP emission limit in 40 CFR Section 63.3890, determined according to 40 CFR Section 63.3951(a) through (g).	40 CFR Section 63.3952(c); Minn. R. 7011.8090
The Permittee must maintain records as specified in 40 CFR Sections 63.3930 and 63.3931.	40 CFR Section 63.3952(d); Minn. R. 7011.8090
The Permittee may use the mass fraction values in 40 CFR pt. 63, subp. MMMM, Table 3 for solvent blends for which the Permittee does not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from 40 CFR pt. 63, subp. MMMM, Table 4 if neither the name nor CAS number match.	40 CFR pt. 63, subp. MMMM, Table 3; 40 CFR Section 63.3951(a); Minn. R. 7011.8090
The Permittee may use the mass fraction values in 40 CFR pt. 63, subp. MMMM, Table 4 for solvent blends for which the Permittee does not have test data or manufacturer's formulation data.	40 CFR pt. 63, subp. MMMM, Table 4; 40 CFR Section 63.3951(a); Minn. R. 7011.8090

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

RECORDKEEPING	hdr
<p>The Permittee must collect and keep records of the data and information specified below. Failure to collect and keep these records is a deviation from the applicable standard.</p> <p>(a) A copy of each notification and report that the Permittee submitted to comply with 40 CFR pt. 63, subp. Mmmm, and the documentation supporting each notification and report;</p>	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR Section 63.3952(d); Minn. R. 7011.8090</p>
<p>(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If the Permittee conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, the Permittee must keep a copy of the complete test report. If the Permittee uses information provided to the Permittee by the manufacturer or supplier of the material that was based on testing, the Permittee must keep the summary sheet of results provided to the Permittee by the manufacturer or supplier. The Permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier;</p>	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR Section 63.3952(d); Minn. R. 7011.8090 (cont.)</p>
<p>(c) For each compliance period, the records specified below:</p> <ul style="list-style-type: none"> - A record of the coating operations on which the Permittee used each compliance option and the time periods (beginning and ending dates and times) for each option the Permittee used; and - A record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or additives, and cleaning materials used each month using Equations 1, 1A, 1B, 1C, and 2 in Appendix B, if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR Section 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 in Appendix B; and the calculation of each 12-month organic HAP emission rate using Equation 3 in Appendix B; 	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR Section 63.3952(d); Minn. R. 7011.8090 (cont.)</p>
<p>(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period;</p> <p>(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight;</p> <p>(f) A record of the volume fraction of coating solids for each coating used during each compliance period;</p> <p>(g) The density for each coating, thinner and/or other additive, and cleaning material used during each compliance period;</p>	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR 63.3952(d); Minn. R. 7011.8090 (cont.)</p>
<p>(h) If the Permittee uses an allowance in Equation 1 in Appendix B for organic HAP contained in waste materials according to 40 CFR Section 63.3951(e)(4), the Permittee must keep the following records:</p> <ul style="list-style-type: none"> - The name and address of each TSDF to which the Permittee sent waste materials for which the Permittee uses an allowance in Equation 1 in Appendix B of this permit; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment; - Identification of the coating operations producing waste materials included in each shipment and the month or months in which the Permittee used the allowance for these materials in Equation 1; 	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR Section 63.3952(d); Minn. R. 7011.8090 (cont.)</p>
<p>- The methodology used in accordance with 40 CFR Section 63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.</p> <p>(j) The Permittee must keep records of the date, time, and duration of each deviation.</p>	<p>40 CFR Section 63.3930(a), (b), (c)(1) and (c)(3), (d), (e), (f), (g), (h) and (j); 40 CFR Section 63.3952(d); Minn. R. 7011.8090 (cont.)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-11** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.</p> <p>As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR Section 63.10(b)(1). The Permittee may keep the records off-site for the remaining 3 years.</p>	40 CFR Sections 63.3931 and 63.3952(d); Minn. R. 7011.8090
40 CFR pt. 63, subp. MMMM, Table 2 lists the General Provisions in 40 CFR Sections 63.1 through 63.15 that apply to the Permittee.	40 CFR Section 63.3901
REPORTING	hdr
<p>Content of Semiannual Compliance Report: At a minimum, the report shall include:</p> <p>1) Company name and address;</p> <p>2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;</p> <p>3) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation;</p> <p>4) Identification of the compliance option or options specified in 40 CFR Section 63.3891 that the Permittee used on each coating operation during the reporting period. If the Permittee switched between compliance options during the reporting period, the Permittee must report the beginning and ending dates for each option the Permittee used.</p>	40 CFR Section 63.3920(a)(3), (4), and (6) and 63.3952(c); Minn. R. 7011.8090
<p>5) If the Permittee used the emission rate without add-on controls or the emission rate with add-on controls compliance option (40 CFR Section 63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period;</p> <p>6) If there were no deviations from the applicable HAP emission limit, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period; and</p>	40 CFR Section 63.3920(a)(3), (4) and (6) and 63.3952(c); Minn. R. 7011.8090 (cont.)
<p>7) If there was a deviation from the applicable HAP emission limit, the semiannual compliance report must contain the following information:</p> <ul style="list-style-type: none"> - The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable HAP emission limit; - The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. The Permittee must submit the calculations for Equations 1, 1A, 1B, 1C, 2, and 3, and if applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR Section 63.3951(e)(4). The Permittee does not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports); and - A statement of the cause of each deviation. 	40 CFR Section 63.3920(a)(3), (4) and (6) and 63.3952(c); Minn. R. 7011.8090 (cont.)
<p>Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.</p> <p>For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified above.</p>	40 CFR Section 63.3920 (a)(1)(iii) and (iv); Minn. R. 7011.8090
Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 must report all deviations as defined in 40 CFR pt. 63, subp. MMMM in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to 40 CFR Section 63.3920 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in 40 CFR pt. 63, subp. MMMM, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.	40 CFR Section 63.3920 (a)(2)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-12**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>If there were no deviations from the emission limitations in sections 63.3890, 63.3892, and 63.3893 that apply to the Permittee, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If the Permittee used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in 40 CFR Section 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.</p>	40 CFR Section 63.3920 (a)(4)
<p>If the Permittee used the emission rate without add-on controls option and there was a deviation from the HAP emission limit in 40 CFR Section 63.3890, the semiannual compliance report must contain the information below:</p> <ul style="list-style-type: none">-The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in Section 63.3890.-The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. The Permittee must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of section 63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to section 63.3951(e)(4). The Permittee does not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports).-A statement of the cause of each deviation.	40 CFR Section 63.3920 (a)(6)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 003 Bake Ovens**Associated Items:** EU 343 Black E Coat Cure Oven

EU 345 Green E Cure Oven

EU 670 AMMPS Paint Cure Oven

EU 674 Powder Coat Cure Oven

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies to each individual unit listed in GP 003.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies to each individual unit listed in GP 003.	Minn. R. 7011.0610, subp. 1(A)(2)
Permitted Fuels: limited to natural gas and liquid propane gas	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-14**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 004 Coating Equipment

Associated Items: CE 155 Water Curtain - Use for Water Wash Paint Booths
 CE 164 Water Curtain - Use for Water Wash Paint Booths
 CE 727 Mat or Panel Filter
 CE 728 Mat or Panel Filter
 CE 729 Mat or Panel Filter
 EU 155 Big Paint Booth
 EU 164 Class B Paint Booth
 EU 342 Black Primer E-Coat Bath/Tunnel
 EU 344 Green Topcoat E-Coat Bath/Tunnel
 EU 660 Alternator Impregnation Station IO-222
 EU 661 Alternator Impregnation Station IO-226
 EU 662 Alternator Impregnation Station IO-232
 EU 663 Alternator Impregnation Station IO-217
 EU 665 Trickle Station IO 180 YSB
 EU 666 Total Enclosure Dry Paint Booth
 EU 668 AMMPS Paint Booth
 EU 669 AMMPS Stencil Booth

What to do	Why to do it
GP 004 EMISSION UNIT - CONTROL EQUIPMENT CROSS REFERENCE CHART EU 155 - CE 155 EU 164 - CE 164 EU 342 - No Spraying & No PM/PM10/PM2.5 emissions EU 344 - No Spraying & No PM/PM10/PM2.5 emissions EU 660 - No Spraying & No PM/PM10/PM2.5 emissions EU 661 - No Spraying & No PM/PM10/PM2.5 emissions EU 662 - No Spraying & No PM/PM10/PM2.5 emissions EU 663 - No Spraying & No PM/PM10/PM2.5 emissions EU 665 - No Spraying & No PM/PM10/PM2.5 emissions EU 666 - CE 727 EU 668 - CE 728 EU 669 - CE 729	hdr
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies to each individual unit listed in GP 004.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies to each individual unit listed in GP 004.	Minn. R. 7011.0715, subp. 1(A)
OPERATIONAL REQUIREMENTS	hdr
Control Equipment Operation: The Permittee shall vent emissions from each GP 004 process to the corresponding control equipment, and operate and maintain the control equipment whenever the emission unit is in operation.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-15**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Material Content: VOC, HAPs, and Solids (PM, PM<10 microns, and PM<2.5 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS), Environmental Data Sheet (EDS), Certified Product Data Sheet (CPDS), or similar documentation provided by the supplier for each material used. If a material content range is given on the MSDS, EDS, or CPDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS, EDS, or CPDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 2.5 microns.	Minn. R. 7007.0800, subp. 4 and 5
Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS, EDS, or CPDS.	Minn. R 7007.0800, subp. 4 and 5 (cont.)
<p>Monthly VOC Emissions Recordkeeping: by the last day of each month, the Permittee shall calculate and record the following:</p> <p>1) The total usage of each VOC-containing material during the previous calendar month, and the VOC content of each material as determined by the Material Content requirement of this permit;</p> <p>2) The VOC emissions for the previous month using the formulas specified in this permit;</p> <p>3) The 12-month rolling sum VOC emissions for the previous 12-month period by summing the monthly VOC emissions data for the previous 12 months.</p>	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800. subp. 4 & 5
<p>Monthly VOC Emission Calculations: Calculate VOC emissions using the following equations:</p> $\text{VOC (tons/month)} = V - W$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$ <p>where: V = total VOC used in tons/month A# = amount of each VOC containing material used, in tons/month B# = weight percent VOC in A#, as a fraction W = the amount of VOC shipped in waste, in tons/month C# = amount, in tons/month, of each VOC containing waste material shipped (if no credit taken for waste shipments, this parameter is zero) D# = weight percent of VOC in C#, as a fraction</p> <p>These emission calculations are used in the compliance demonstration method for the limits in GP 008 (PM, PM10, PM2.5), and GP 009 (VOC).</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Monthly Spray Booth PM, PM10, and PM2.5 Emissions Recordkeeping: by the last day of each month, the Permittee shall calculate and record the following:</p> <p>1) The usage of each solids-containing material for the previous calendar month for each spray booth (EU 155, EU 164, EU 666, EU 668, and EU 669), and the solids content of each material as determined by the Material Content requirement of this permit. The Permittee may record the total GP 004 usage of each solids-containing material instead of usage for each spray booth, if the Permittee uses the lowest overall capture efficiency of all spray booths and high-volume low pressure (HVLP) guns are used in all GP 004 spray booths.</p> <p>2) The PM/PM10/PM2.5 emissions for the previous month using the formulas specified in this permit.</p> <p>3) The 12-month rolling sum PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly PM/PM10/PM2.5 emissions data for the previous 12 months.</p>	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800. subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-16**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>Monthly Spray Booth PM, PM10, and PM2.5 Emission Calculations: Calculate PM/PM10/PM2.5 emissions from the spray booths using the following equations:</p> $\text{PM/PM10/PM2.5 (tons/month)} = S(1-CE)(1-TE) - W$ $S = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + (C3 \times D3) + \dots$ <p>where:</p> <p>S = total solids used in tons/month</p> <p>CE = overall control efficiency, as a fraction for the spray booth control equipment</p> <p>TE = transfer efficiency, as a fraction (75% for HVLP)</p> <p>A# = amount of each solids containing material sprayed, in tons/month</p> <p>B# = weight percent solids in A#, as a fraction</p> <p>W = the amount of solids shipped in waste, in tons/month</p> <p>C# = amount, in tons/month, of each solids containing waste material shipped; if the Permittee chooses to not take credit for waste shipments, this parameter would be zero</p> <p>D# = weight percent of solids in C#, as a fraction</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <p>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water.</p> <p>2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP 004. These assumptions are listed in Appendix E of this permit. Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150.</p>	Minn. R. 7005.0100, subp. 35a

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-17 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 005 Heating Equipment Emissions Tracking

Associated Items: EU 186 North Boiler

EU 187 South Boiler

EU 343 Black E Coat Cure Oven

EU 345 Green E Cure Oven

EU 670 AMMPS Paint Cure Oven

EU 674 Powder Coat Cure Oven

What to do	Why to do it																								
GP 005 ASSOCIATED ITEMS AND FUEL USAGE TRACKING	hdr																								
All heating equipment including space heaters that qualify as insignificant activities are included in GP 005 for emission tracking purposes only. GP 005 monthly fuel usage also includes the fuel paid for heating the portion of the Murphy Warehouse that stores products.	Title I Condition: to avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000																								
Recordkeeping: by the last day of each month, calculate and record the total amount of each fuel combusted during the previous month by GP 005 emission units including insignificant activities and the portion of the fuel paid for by the Permittee for heating the Murphy Warehouse. Record natural gas usage in units of million cubic feet (mmcf) and liquid propane gas (LPG) usage in units of thousand gallons (mgal).	Title I Condition: to avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5																								
Emission Factors for Heating Sources: The Permittee shall calculate the following emissions from heating sources for natural gas and LPG using the following emission factors: <table><tr><td>Natural Gas lb/mmcf</td><td>LPG (Propane) lb/mgal</td><td>Pollutant</td></tr><tr><td>84</td><td>7.5</td><td>CO</td></tr><tr><td>100</td><td>13</td><td>NOx</td></tr><tr><td>7.6</td><td>0.7</td><td>PM</td></tr><tr><td>7.6</td><td>0.7</td><td>PM10</td></tr><tr><td>7.6</td><td>0.7</td><td>PM2.5</td></tr><tr><td>0.6</td><td>0.02</td><td>SO2</td></tr><tr><td>5.5</td><td>1.0</td><td>VOC</td></tr></table>	Natural Gas lb/mmcf	LPG (Propane) lb/mgal	Pollutant	84	7.5	CO	100	13	NOx	7.6	0.7	PM	7.6	0.7	PM10	7.6	0.7	PM2.5	0.6	0.02	SO2	5.5	1.0	VOC	Minn. R. 7007.0800, subp. 4
Natural Gas lb/mmcf	LPG (Propane) lb/mgal	Pollutant																							
84	7.5	CO																							
100	13	NOx																							
7.6	0.7	PM																							
7.6	0.7	PM10																							
7.6	0.7	PM2.5																							
0.6	0.02	SO2																							
5.5	1.0	VOC																							
CO2e Emission Factors for Heating Sources: The Permittee shall calculate CO2e emissions from heating sources for natural gas and LPG using the following emission factors: <table><tr><td colspan="3">Emission Factors for CO2e (lb/mmBtu)</td><td colspan="2">High Heat Value (mmBtu/mgal), (Natural gas, mmBtu/mmcf)</td></tr><tr><td>CO2</td><td>CH4</td><td>N2O</td><td>HHV</td><td>Fuel</td></tr><tr><td>118</td><td>0.0023</td><td>0.0022</td><td>1,020</td><td>Natural Gas</td></tr><tr><td>138</td><td>0.0022</td><td>0.0099</td><td>91</td><td>LPG</td></tr></table>	Emission Factors for CO2e (lb/mmBtu)			High Heat Value (mmBtu/mgal), (Natural gas, mmBtu/mmcf)		CO2	CH4	N2O	HHV	Fuel	118	0.0023	0.0022	1,020	Natural Gas	138	0.0022	0.0099	91	LPG	Minn. R. 7007.0800, subp. 4				
Emission Factors for CO2e (lb/mmBtu)			High Heat Value (mmBtu/mgal), (Natural gas, mmBtu/mmcf)																						
CO2	CH4	N2O	HHV	Fuel																					
118	0.0023	0.0022	1,020	Natural Gas																					
138	0.0022	0.0099	91	LPG																					
Monthly Emission Calculations: by the last day of each month, calculate and record the GP 005 emissions from the previous month of PM, PM10, PM2.5, SO2, NOx, CO, and VOC using the following equation: E = EFng * Fng + EFlpg * Flpg where: E = monthly emissions of a pollutant EFng = NG emission factor for the pollutant Fng = NG usage during the previous month (mmcf of natural gas) EFlpg = LPG emission factor for the pollutant Flpg = LPG usage during the previous month (mgal of LPG) These emission calculations are used in the compliance demonstration method for the limits in GP 007 (CO, NOx, SO2), GP 008 (PM, PM10, PM2.5), and GP 009 (VOC).	Minn. R. 7007.0800, subps. 4 & 5																								

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-18**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Monthly CO₂e Emission Calculations: by the last day of each month, calculate and record the GP 005 emissions from the previous month of CO₂e using the following equation:

$$\text{CO}_2\text{e} = \text{SUM}[(\text{CO}_2\text{EFf} * \text{Fuel} * \text{HHV} * 1) + (\text{CH}_4\text{EFf} * \text{Fuel} * \text{HHV} * 21) + (\text{N}_2\text{OEFf} * \text{Fuel} * \text{HHV} * 310)]$$

where:

CO₂e = emissions of carbon dioxide equivalent (lb/month)

CO₂EFf = fuel-specific emission factor for carbon dioxide (lb/mmBtu)

CH₄EFf = fuel-specific emission factor for methane (lb/mmBtu)

N₂OEFf = fuel-specific emission factor for nitrous oxide (lb/mmBtu)

Fuel = Mass or volume of fuel combusted in one month (mmcf, mgal)

HHV = High heat value of fuel (mmBtu/mgal), (Natural gas, mmBtu/mmcf)

1 = Global warming potential of carbon dioxide

21 = Global warming potential of methane

310 = Global warming potential of nitrous oxide

These emission calculations are used in the compliance demonstration method for the CO₂e limits in GP 007.

Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-19 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 006 Peak-Shaving Generators

Associated Items: EU 423 Generator 1 (4650 Hp)

EU 424 Generator 2 (4650 Hp)

EU 425 Generator 3 (4650 Hp)

EU 426 Generator 4 (4650 Hp)

EU 656 Generator 5 (4650 Hp)

What to do	Why to do it
LIMITS AND OPERATING REQUIREMENTS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This limit applies to each individual unit listed in GP 006.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This limit applies to each individual unit listed in GP 006.	Minn. R. 7011.2300, subp. 1
Sulfur Content of Fuel: less than or equal to 0.0015 percent by weight (15 ppm by weight) for diesel fuel.	Minn. R. 7007.0800, subp. 2
Permitted Fuels: diesel fuel for all GP 006 engines except only natural gas for EU 689.	Minn. R. 7005.0100, subp. 35a
MONITORING AND RECORDKEEPING	hdr
Diesel Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel, either specifying the actual sulfur content in percent by weight or certifying that the sulfur content does not exceed 0.0015 percent (15 ppm) by weight. The Permittee may use the bill of lading for each diesel fuel delivery in lieu of a certification to demonstrate the fuel sulfur content does not exceed 0.0015% by weight.	Minn. R. 7007.0800, subps. 4 & 5
Fuel Usage Recordkeeping: by the last day of each month, the Permittee shall calculate emissions from GP 006 and record the monthly usage of diesel fuel in thousand gallons (mgal), and natural gas usage records shall be in million cubic feet (mmcf). Separate fuel usage records shall be kept for diesel-fired engines >600 hp and diesel-fired engines 600 hp or less.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
Emission Factors for Internal Combustion Engines: The Permittee shall calculate the following emissions from internal combustion engines for diesel and natural gas using the following emission factors: Diesel Fuel >600 hp Natural Gas lb/mgal lb/mmcf Pollutant 116.5 393.7 CO 438.4 3,233.4 NOx 13.7 49.3 PM 13.7 49.3 PM10 13.7 49.3 PM2.5 69.2 0.6 SO2 12.3 122.4 VOC	Minn. R. 7007.0800, subp. 4
Emission Factors for Internal Combustion Engines: The Permittee shall calculate CO2e emissions from internal combustion engines for all fuels using the following emission factors: Emission Factors for CO2e High Heat Value (lb/mmBtu) (mmBtu/mgal), (Natural gas, mmBtu/mmcf) CO2 CH4 N2O HHV Fuel 117 0.0022 0.00022 1,028 Natural Gas 165 0.0066 0.00132 150 Diesel Fuel >600 HP	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-20**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>Monthly Emission Calculations: by the last day of each month, calculate and record the GP 006 emissions from the previous month of PM, PM2.5, PM10, SO2, NOx, CO, CO2e, and VOC using the following equation:</p> $E = \text{SUM}[E_{ff} * F_f]$ <p>where:</p> <p>E = emissions of a pollutant E_{ff} = fuel-specific emission factor for the pollutant F_f = usage of specific fuel during the previous month (mgal of diesel fuel, or mmcf of natural gas)</p> <p>These emission calculations are used in the compliance demonstration method for the limits in GP 007 (CO2e, CO, NOx, SO2), GP 008 (PM, PM10, PM2.5), and GP 009 (VOC).</p>	Minn. R. 7007.0800, subp. 4 & 5
<p>Monthly CO2e Emission Calculations: by the last day of each month, calculate and record the GP 006 emissions from the previous month of CO2e using the following equation:</p> $\text{CO2e} = \text{SUM}[(\text{CO2EFf} * \text{Fuel} * \text{HHV} * 1) + (\text{CH4EFf} * \text{Fuel} * \text{HHV} * 21) + (\text{N2OEFf} * \text{Fuel} * \text{HHV} * 310)]$ <p>where:</p> <p>CO2e = emissions of carbon dioxide equivalent (lb/month) CO2EFf = fuel-specific emission factor for carbon dioxide (lb/mmBtu) CH4EFf = fuel-specific emission factor for methane (lb/mmBtu) N2OEFf = fuel-specific emission factor for nitrous oxide (lb/mmBtu) Fuel = Mass or volume of fuel combusted in one month (mmcf, mgal) HHV = High heat value of fuel (mmBtu/mgal), (Natural gas, mmBtu/mmcf) 1 = Global warming potential of carbon dioxide 21 = Global warming potential of methane 310 = Global warming potential of nitrous oxide</p> <p>These emission calculations are used in the compliance demonstration method for the CO2e limits in GP 007.</p>	Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-21**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

Associated Items: EU 063 40-115kW Engine Test

EU 091 Cell 19

EU 095 Cell 17

EU 099 Cell 15

EU 103 Cell 13

EU 107 Cell 11

EU 111 Cell 9

EU 115 Cell 7

EU 119 Cell 5

EU 120 Cell 1 (Cold Room)

EU 123 Cell 3

EU 136 Cell 30

EU 137 Endurance A & B

EU 151 Cell 23

EU 152 Cell 21

EU 154 Big Test Cell 7

EU 167 Big Test Cell 8

EU 179 Big Test Cell 9

EU 186 North Boiler

EU 187 South Boiler

EU 189 Big Test Cell 1

EU 190 Big Test Cell 2

EU 191 Big Test Cell 3

EU 192 Big Test Cell 4

EU 193 Big Test Cell 5

EU 195 Big Test Cell 6

EU 343 Black E Coat Cure Oven

EU 345 Green E Cure Oven

EU 423 Generator 1 (4650 Hp)

EU 424 Generator 2 (4650 Hp)

EU 425 Generator 3 (4650 Hp)

EU 426 Generator 4 (4650 Hp)

EU 601 Development Cell 133

EU 602 Development Cell 134

EU 603 Development Cell 135

EU 604 Development Cell 136

EU 606 Development Cell 138

EU 607 Development Cell 139

EU 651 Endurance Cell 201

EU 652 Endurance Cell 202

EU 653 Endurance Cell 205

EU 654 Endurance Cell 206

EU 656 Generator 5 (4650 Hp)

EU 659 Combo Production Test Room

EU 667 High Horsepower Test Facility (HHTF)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-22**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Associated Items:

- EU 670 AMMPS Paint Cure Oven
- EU 671 AMMPS Test Cell 1
- EU 672 AMMPS Test Cell 2
- EU 673 AMMPS Test Cell 3
- EU 674 Powder Coat Cure Oven
- EU 675 New Sound Test Cell
- EU 676 HHTF outside test site
- EU 677 Tech Center outside trailer
- EU 678 HH/BEAR Test cell 1
- EU 679 HH/BEAR Test cell 2
- EU 680 HH/BEAR Test cell 3
- EU 681 HH/BEAR Test cell 4
- EU 682 AMMPS Test cell 505
- EU 683 AMMPS Test cell 130/other
- EU 684 Tech center test cell 141
- EU 685 Tech center test cell 142
- EU 686 Tech center test cell 143
- EU 687 Tech center test cell 144
- EU 688 ATC Small test cell
- EU 689 West End Outside Testing Pad

What to do	Why to do it
EMISSION LIMITS	hdr
Carbon Dioxide Equivalent: less than or equal to 95,000 tons/year using 12-month Rolling Sum The limit applies to the sum of CO ₂ e emissions calculated in GP 001, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 240 tons/year using 12-month Rolling Sum The limit applies to the sum of CO emissions calculated in GP 001, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 240 tons/year using 12-month Rolling Sum The limit applies to the sum of NO _x emissions calculated in GP 001, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 to avoid violation of NO _x ambient air standard at Minn. R. 7009.0080
Sulfur Dioxide: less than or equal to 95 tons/year using 12-month Rolling Sum The limit applies to the sum of SO ₂ emissions calculated in GP 001, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Emissions Monitoring: by the last day of each month, the Permittee shall calculate and record the total CO, CO ₂ e, NO _x , and SO ₂ emissions for the previous month. CO, CO ₂ e, NO _x , and SO ₂ total monthly emissions are determined by summing the monthly emissions of each of these pollutants determined in GP 001, GP 005, and GP 006.	Minn. R. 7007.0800, subp. 4 & 5
PRE-CAP REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-23**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>Pre-Cap: All test stands and cells, generators, and bake ovens at the Facility are subject to this Pre-Cap and are covered by the limits of GP 007. If the Permittee replaces or modifies any existing, or adds new test stands and cells, generators, or bake ovens, the EUs are subject to the requirements of GP 007 as well as all of the requirements of GP 001, GP 003, and GP 006 as applicable. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>For modifications that solely involve test stands and cells, generators, and bake ovens covered by this Pre-Cap, the Permittee is not required to complete CO₂e, CO, NO_x, and SO₂ calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.</p>	<p>Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
PRE-CAP MONITORING AND RECORDKEEPING	hdr
<p>Equipment Labeling: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes. The numbers shall correlate the unit to the appropriate EU and GP numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused.</p>	Minn. R. 7007.0800, subp. 2
<p>Equipment Inventory: The Permittee shall maintain a written list of all emissions units and control equipment on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change.</p> <p>The list shall correlate the units to the numbers used in this permit (EU, GP, CE) and shall include the data on forms GI-04, GI-05B, and GI-05C. The date of construction shall be the date the change was made for replaced, modified, or new equipment.</p>	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-24**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 008 Particulate Matter Emission Limits**Associated Items:** CE 155 Water Curtain - Use for Water Wash Paint Booths

CE 164 Water Curtain - Use for Water Wash Paint Booths

CE 727 Mat or Panel Filter

CE 728 Mat or Panel Filter

CE 729 Mat or Panel Filter

EU 063 40-115kW Engine Test

EU 091 Cell 19

EU 095 Cell 17

EU 099 Cell 15

EU 103 Cell 13

EU 107 Cell 11

EU 111 Cell 9

EU 115 Cell 7

EU 119 Cell 5

EU 120 Cell 1 (Cold Room)

EU 123 Cell 3

EU 136 Cell 30

EU 137 Endurance A & B

EU 151 Cell 23

EU 152 Cell 21

EU 154 Big Test Cell 7

EU 167 Big Test Cell 8

EU 179 Big Test Cell 9

EU 186 North Boiler

EU 187 South Boiler

EU 189 Big Test Cell 1

EU 190 Big Test Cell 2

EU 191 Big Test Cell 3

EU 192 Big Test Cell 4

EU 193 Big Test Cell 5

EU 195 Big Test Cell 6

EU 343 Black E Coat Cure Oven

EU 345 Green E Cure Oven

EU 423 Generator 1 (4650 Hp)

EU 424 Generator 2 (4650 Hp)

EU 425 Generator 3 (4650 Hp)

EU 426 Generator 4 (4650 Hp)

EU 601 Development Cell 133

EU 602 Development Cell 134

EU 603 Development Cell 135

EU 604 Development Cell 136

EU 606 Development Cell 138

EU 607 Development Cell 139

EU 651 Endurance Cell 201

EU 652 Endurance Cell 202

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-25

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Associated Items:

- EU 653 Endurance Cell 205
- EU 654 Endurance Cell 206
- EU 656 Generator 5 (4650 Hp)
- EU 659 Combo Production Test Room
- EU 666 Total Enclosure Dry Paint Booth
- EU 667 High Horsepower Test Facility (HHTF)
- EU 668 AMMPS Paint Booth
- EU 669 AMMPS Stencil Booth
- EU 670 AMMPS Paint Cure Oven
- EU 671 AMMPS Test Cell 1
- EU 672 AMMPS Test Cell 2
- EU 673 AMMPS Test Cell 3
- EU 674 Powder Coat Cure Oven
- EU 675 New Sound Test Cell
- EU 676 HHTF outside test site
- EU 677 Tech Center outside trailer
- EU 678 HH/BEAR Test cell 1
- EU 679 HH/BEAR Test cell 2
- EU 680 HH/BEAR Test cell 3
- EU 681 HH/BEAR Test cell 4
- EU 682 AMMPS Test cell 505
- EU 683 AMMPS Test cell 130/other
- EU 684 Tech center test cell 141
- EU 685 Tech center test cell 142
- EU 686 Tech center test cell 143
- EU 687 Tech center test cell 144
- EU 688 ATC Small test cell
- EU 689 West End Outside Testing Pad

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 95 tons/year using 12-month Rolling Sum The limit applies to the sum of PM emissions calculated in GP 001, GP 004, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 10 micron: less than or equal to 95 tons/year using 12-month Rolling Sum The limit applies to the sum of PM10 emissions calculated in GP 001, GP 004, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
PM < 2.5 micron: less than or equal to 95 tons/year using 12-month Rolling Sum The limit applies to the sum of PM2.5 emissions calculated in GP 001, GP 004, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Emissions Monitoring: by the last day of each month, the Permittee shall calculate and record the total PM, PM10, and PM2.5 emissions for the previous month. PM, PM10, and PM2.5 total monthly emissions are determined by summing the monthly emissions of each of these pollutants determined in GP 001, GP 004, GP 005, and GP 006.	Minn. R. 7007.0800, subp. 4 & 5
PRE-CAP REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-26**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

PM/PM10/PM2.5 Pre-Cap: All test stands and cells, generators, bake ovens, coating equipment, and coating equipment control equipment are subject to this Pre-Cap and are covered by the limits of GP 008. If the Permittee replaces or modifies any existing, or adds new test stands and cells, generators, bake ovens, coating equipment, or coating equipment control equipment, the units are subject to the requirements of GP 008 as well as all of the requirements of GP 001, GP 002, GP 003, GP 004, GP 006, and GP 010 as applicable. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
For modifications that solely involve equipment covered by the PM/PM10/PM2.5 Pre-Cap, the Permittee is not required to complete PM/PM10/PM2.5 calculations described in Minn. R. 7007.1200, subp. 2. A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 (cont.)
PRE-CAP MONITORING AND RECORDKEEPING	hdr
Equipment Labeling: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes. The numbers shall correlate the unit to the appropriate EU and GP numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused.	Minn. R. 7007.0800, subp. 2
Equipment Inventory: The Permittee shall maintain a written list of all emissions units on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change. The list shall correlate the units to the numbers used in this permit (EU, GP, CE) and shall include the data on forms GI-04, GI-05B, and GI-05C. The date of construction shall be the date the change was made for replaced, modified, or new equipment.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-27**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 009 VOC Emission Limits**Associated Items:** CE 155 Water Curtain - Use for Water Wash Paint Booths

CE 164 Water Curtain - Use for Water Wash Paint Booths

CE 727 Mat or Panel Filter

CE 728 Mat or Panel Filter

CE 729 Mat or Panel Filter

EU 063 40-115kW Engine Test

EU 091 Cell 19

EU 095 Cell 17

EU 099 Cell 15

EU 103 Cell 13

EU 107 Cell 11

EU 111 Cell 9

EU 115 Cell 7

EU 119 Cell 5

EU 120 Cell 1 (Cold Room)

EU 123 Cell 3

EU 136 Cell 30

EU 137 Endurance A & B

EU 151 Cell 23

EU 152 Cell 21

EU 154 Big Test Cell 7

EU 155 Big Paint Booth

EU 164 Class B Paint Booth

EU 167 Big Test Cell 8

EU 179 Big Test Cell 9

EU 186 North Boiler

EU 187 South Boiler

EU 189 Big Test Cell 1

EU 190 Big Test Cell 2

EU 191 Big Test Cell 3

EU 192 Big Test Cell 4

EU 193 Big Test Cell 5

EU 195 Big Test Cell 6

EU 342 Black Primer E-Coat Bath/Tunnel

EU 343 Black E Coat Cure Oven

EU 344 Green Topcoat E-Coat Bath/Tunnel

EU 345 Green E Cure Oven

EU 423 Generator 1 (4650 Hp)

EU 424 Generator 2 (4650 Hp)

EU 425 Generator 3 (4650 Hp)

EU 426 Generator 4 (4650 Hp)

EU 601 Development Cell 133

EU 602 Development Cell 134

EU 603 Development Cell 135

EU 604 Development Cell 136

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-28**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Associated Items:

- EU 606 Development Cell 138
- EU 607 Development Cell 139
- EU 651 Endurance Cell 201
- EU 652 Endurance Cell 202
- EU 653 Endurance Cell 205
- EU 654 Endurance Cell 206
- EU 656 Generator 5 (4650 Hp)
- EU 659 Combo Production Test Room
- EU 660 Alternator Impregnation Station IO-222
- EU 661 Alternator Impregnation Station IO-226
- EU 662 Alternator Impregnation Station IO-232
- EU 663 Alternator Impregnation Station IO-217
- EU 665 Trickle Station IO 180 YSB
- EU 666 Total Enclosure Dry Paint Booth
- EU 667 High Horsepower Test Facility (HHTF)
- EU 668 AMMPS Paint Booth
- EU 669 AMMPS Stencil Booth
- EU 670 AMMPS Paint Cure Oven
- EU 671 AMMPS Test Cell 1
- EU 672 AMMPS Test Cell 2
- EU 673 AMMPS Test Cell 3
- EU 674 Powder Coat Cure Oven
- EU 675 New Sound Test Cell
- EU 676 HHTF outside test site
- EU 677 Tech Center outside trailer
- EU 678 HH/BEAR Test cell 1
- EU 679 HH/BEAR Test cell 2
- EU 680 HH/BEAR Test cell 3
- EU 681 HH/BEAR Test cell 4
- EU 682 AMMPS Test cell 505
- EU 683 AMMPS Test cell 130/other
- EU 684 Tech center test cell 141
- EU 685 Tech center test cell 142
- EU 686 Tech center test cell 143
- EU 687 Tech center test cell 144
- EU 688 ATC Small test cell
- EU 689 West End Outside Testing Pad

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: less than or equal to 240 tons/year using 12-month Rolling Sum The limit applies to the sum of VOC emissions calculated in GP 001, GP 004, GP 005, and GP 006.	Title I Condition: to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-29**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Emissions Monitoring: by the last day of each month, the Permittee shall calculate and record the total VOC emissions for the previous month. VOC total monthly emissions are determined by summing the monthly VOC emissions determined in GP 001, GP 004, GP 005, and GP 006.	Minn. R. 7007.0800, subp. 4 & 5
PRE-CAP REQUIREMENTS	hdr
<p>VOC Pre-Cap: All test stands and cells, generators, bake ovens and coating equipment at the Facility are subject to this Pre-Cap and are covered by the limit in GP 009. If the Permittee replaces or modifies any existing, or adds new test stands and cells, generators, bake ovens and coating equipment, such equipment is subject to the requirements of GP 009 as well as all of the requirements of GP 001, GP 002, GP 003, GP 004, and GP 006 as applicable. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.</p> <p>For modifications that solely involve equipment covered by the VOC Pre-Cap, The Permittee is not required to complete VOC calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
PRE-CAP MONITORING AND RECORDKEEPING	hdr
Equipment Labeling: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes. The numbers shall correlate the unit to the appropriate EU and GP numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused.	Minn. R. 7007.0800, subp. 2
<p>Equipment Inventory: The Permittee shall maintain a written list of all emissions units and control equipment on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change.</p> <p>The list shall correlate the units to the numbers used in this permit (EU, GP, CE) and shall include the data on forms GI-04, GI-05B, and GI-05C. The date of construction shall be the date the change was made for replaced, modified, or new equipment.</p>	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-30**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: GP 010 Pre-Cap Control Equipment**Associated Items:** CE 155 Water Curtain - Use for Water Wash Paint Booths

CE 164 Water Curtain - Use for Water Wash Paint Booths

CE 727 Mat or Panel Filter

CE 728 Mat or Panel Filter

CE 729 Mat or Panel Filter

What to do	Why to do it
PRE-CAP CONTROL EQUIPMENT REQUIREMENTS	hdr
If the Permittee adds new water curtains, or replaces or modifies any existing water curtain listed in GP 010, such equipment is subject to all of the requirements of GP 010, and shall achieve PM, PM10, and PM2.5 control efficiencies that are equal or better than the highest control efficiencies of existing water curtain control equipment. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
If the Permittee replaces any existing mat or panel filters, adds new mat or panel filters, or modifies the mat or panel filters listed in GP 010, such equipment is subject to all of the requirements of GP 010, and shall achieve PM, PM10, and PM2.5 control efficiencies that are equal or better than the highest control efficiencies of existing mat or panel filter control equipment. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: The Permittee shall conduct daily inspections of the control equipment during days when the corresponding spray painting emission unit is in production. The daily inspections shall confirm that the water wash spray paint booth fan and water circulation system is started up and in operation before painting operations begin. The daily inspection will include a visual check of system water level to assure sufficient water is present and circulating in the system for proper operation. The Permittee shall maintain records of each inspection.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14
Equipment Inventory: The Permittee shall maintain a written list of all control equipment on site. The Permittee shall update the list to include any replaced, modified, or new equipment prior to making the change. The list shall correlate the control equipment to the numbers used in this permit (EU, GP, CE) and shall include the data on forms GI-04, GI-05B, and GI-05C. The date of construction shall be the date the change was made for replaced, modified, or new equipment.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-31**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 186 North Boiler**Associated Items:** GP 005 Heating Equipment Emissions Tracking

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 186

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input .	Minn. R. 7011.0510, subp. 1 & Minn. R. 7011.0545
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Permitted Fuels: Natural gas and liquid propane gas only.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Subject Item: EU 187 South Boiler
Associated Items: GP 005 Heating Equipment Emissions Tracking
GP 007 Emission Limits for Test Cells, Generators, and Combustion Units
GP 008 Particulate Matter Emission Limits
GP 009 VOC Emission Limits
SV 187

What to do	Why to do it
Recordkeeping: The Permittee shall record and maintain records of the total amount of each fuel combusted each month by EU 187.	40 CFR Section 60.48c(g)
Permitted Fuels: Natural gas and liquid propane gas only.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-33**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 423 Generator 1 (4650 Hp)**Associated Items:** CE 730 Oxidation Catalyst

GP 006 Peak-Shaving Generators

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 423

What to do	Why to do it
Submit: due 30 days after 05/02/2013, the manufacturer and model information for CE 730.	Minn. R. 7007.0800, subp. 2
PART 63 SUBPART ZZZZ NESHAP REQUIREMENTS	hdr
APPLICABILITY	hdr
40 CFR Part 63, subpart ZZZZ applies to EU 423 which is a non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. The Permittee shall comply with the applicable emission and operational limitations no later than May 3, 2013.	40 CFR Section 63.6595(a); Minn. R. 7011.8150
EMISSION LIMITS	hdr
Carbon Monoxide: greater than or equal to 70 percent emission reduction. This requirement shall be met except during periods of startup.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2c; Minn. R. 7011.8150
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall minimize the engine's time spent at idle during periods of startup and minimize the engine's startup time to a period needed for appropriate and safe loading of EU 423, not to exceed 30 minutes, after which time the emission standard to reduce CO emissions that is applicable to all times other than startup applies. The Permittee can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.	40 CFR Section 63.6600(d); 40 CFR Section pt. 63, subp. ZZZZ, Table 2c; 40 CFR 63.6625(h); Minn. R. 7011.8150
Pressure Drop: greater than or equal to 2 inches of water column shall not change across CE 730 at 100 percent load plus or minus 10 percent from the pressure drop across CE 730 that was measured during the initial performance test.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee shall maintain the temperature of the exhaust from EU 423 so that the catalyst inlet Temperature: greater than or equal to 450 degrees F and less than or equal to 1350 degrees F	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.	40 CFR Section 63.6601; 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150 (cont.)
Only diesel fuel that meets the requirements in 40 CFR Section 80.510(b) for nonroad diesel fuel shall be used.	40 CFR Section 63.6604; Minn. R. 7011.8150
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after 05/03/2013 to measure oxygen and CO at the inlet and outlet of the oxidation catalyst, CE 730. The test shall be conducted according to the provisions in 40 CFR Section 63.7(a)(2). During the initial performance test, the catalyst pressure drop and catalyst inlet temperature operating limitations shall be established.	40 CFR Section 63.6610(a); 40 CFR Section 63.6630(b); Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall comply with the following requirements for performance tests for stationary RICE: i. The Permittee shall measure the oxygen at the inlet and outlet of CE 730 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005). The Permittee may also use Methods 3A and 10 of 40 CFR pt. 60, appendix A as options to ASTM D6522-00 (2005). Measurements to determine oxygen shall be made at the same time as the measurements for CO concentration. ii. The Permittee shall measure the CO at the inlet and outlet of CE 730 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005); Methods 3A and 10 of 40 CFR pt. 60, appendix A (options to ASTM D6522-00); Method 320 of 40 CFR pt. 63, appendix A; or ASTM D6348-03. The CO concentration shall be at 15 percent oxygen, dry basis.	40 CFR Section 63.6610(a); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Performance Test: due after the initial performance test. The Permittee shall conduct subsequent performance tests for each CI stationary RICE every 8,760 hrs, or 3 years, whichever comes first.	40 CFR Section 63.6615; 40 CFR pt. 63, subp. ZZZZ, Table 3; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall install a non-resettable hour meter by May 3, 2013, if one is not already installed in order to comply with requirement to conduct subsequent performance testing.	Minn. R. 7007.0800, subp. 2
The Permittee shall conduct each performance test in this permit according to the requirements listed in this permit. For each performance test, the Permittee shall conduct three separate test runs for each performance test required, as specified in 40 CFR Section 63.7(e)(3). Each test run shall last at least 1 hour.	40 CFR Section 63.6620(a), (b), and (d); Minn. R. 7011.8150
(1) The Permittee shall use Equation 1 in Appendix C to determine compliance with the percent reduction requirement. (2) The Permittee must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of CE 730 to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide. If pollutant concentrations are to be corrected to 15 percent oxygen and carbon dioxide concentration is measured in lieu of oxygen concentration measurement, a carbon dioxide correction factor is needed. Calculate the carbon dioxide correction factor as described in paragraphs below: i. Calculate the fuel-specific fuel factor value for the fuel burned during the test using values obtained from Method 19 40 CFR Section 5.2, and Equation 2 in Appendix C.	40 CFR Section 63.6620(e); Minn. R. 7011.8150
ii. Calculate the carbon dioxide correction factor for correcting measurement data to 15 percent oxygen using Equation 3 in Appendix C. iii. Using Equation 4 in Appendix C, calculate the NOx and sulfur dioxide gas concentrations adjusted to 15 percent oxygen using carbon dioxide.	40 CFR Section 63.6620(e); Minn. R. 7011.8150 (cont.)
The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value shall be provided.	40 CFR Section 63.6620(i); Minn. R. 7011.8150
COMPLIANCE REQUIREMENTS	hdr
The Permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR pt. 63, subp. ZZZZ at all times.	40 CFR Section 63.6605(a); Minn. R. 7011.8150
At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b); Minn. R. 7011.8150
For each non-emergency stationary CI RICE >500 HP the Permittee has demonstrated initial compliance if; i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. A CPMS has been installed to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature have been recorded during the initial performance test.	40 CFR Section 63.6630(a); 40 CFR pt. 63, subp. ZZZZ, Table 5; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-35 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 40 CFR Section 63.6645(a)(3) and (h)(2).	40 CFR Section 63.6630(c); Minn. R. 7011.8150
<p>The Permittee shall install, operate, and maintain each CPMS according to the requirements listed below:</p> <p>(1) A site-specific monitoring plan shall be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) through (v) below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the facility may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this permit in the facility site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150
<p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>(2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR Section 63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>For EU 423, the Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in 40 CFR pt. 63, subp. ZZZZ, Tables 2b and 2c that apply according the methods specified below;</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a); 40 CFR pt. 63, subp. ZZZZ, Table 6; Minn. R. 7011.8150 (cont.)
The Permittee shall comply with the applicable General Provisions in 40 CFR Section 63.1 through 63.15, as stated in 40 CFR pt. 63, subp. ZZZZ, Table 8.	40 CFR Section 63.6665; 40 CFR pt. 63, subp. ZZZZ, Table 8; Minn. R. 7011.8150
MONITORING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-36**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee shall monitor and collect data according to the paragraphs below:</p> <p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, EU 423 shall be monitored continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels shall not be used. However, all the valid data collected during all other periods shall be used.</p>	40 CFR Section 63.6635; Minn. R. 7011.81550
OPERATION AND MAINTENANCE REQUIREMENTS	hdr
<p>The Permittee shall comply with either 1) or 2) below. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g); Minn. R. 7011.8150
RECORDKEEPING REQUIREMENTS	hdr
<p>The Permittee shall keep the following records:</p> <p>(1) A copy of each notification and report that was submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150
<p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150 (cont.)
<p>For each CPMS, the Permittee shall keep the records listed below:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b); Minn. R. 7011.8150
<p>Records shall be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>Each record shall be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-37**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall keep records that are required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.	40 CFR Section 63.6655(d); Minn. R. 7011.8150
NOTIFICATIONS AND REPORTING REQUIREMENTS	hdr
Each instance in which the Permittee did not meet each applicable emission limitation or operating limitation in Tables 2b and 2c shall be reported. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the Permittee shall also conduct a performance test to demonstrate that the required emission limitation applicable to the stationary RICE is met.	40 CFR Section 63.6640(b); Minn. R. 7011.8150
Each instance in which the Permittee does not meet the applicable requirements listed in 40 CFR pt. 63, subp. ZZZZ, Table 8 also shall be reported.	40 CFR Section 63.6640(e); Minn. R. 7011.8150
The Permittee shall meet the notification requirements in 40 CFR Section 63.6645 and in 40 CFR part 63, subp. A.	40 CFR Section 63.6595(c); Minn. R. 7011.8150
The Permittee shall submit all of the notifications in 40 CFR Section Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.	40 CFR Section 63.6645; Minn. R. 7011.8150
<p>Unless the Administrator has approved a different schedule for submission of reports under 40 CFR Section 63.10(a), the Permittee shall submit each compliance report that applies by the date in 40 CFR pt.63, subp. ZZZZ, Table 7 and according to the requirements listed below:</p> <p>(1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on 05/03/2013 and ending on December 31.</p> <p>(2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than January 31.</p> <p>(3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150
<p>(4) For semiannual Compliance reports, each subsequent Compliance report shall be postmarked or delivered no later than July 31.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of 40 CFR Section 63.6650.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150 (cont.)
<p>The compliance report shall contain the following:</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-38**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>(5) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150 (cont.)
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE the Permittee shall include information in 40 CFR Section 63.6650(c) and the information listed below:</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150
<p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150 (cont.)
<p>The compliance report must also contain:</p> <p>a) If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p> <p>b) If a deviation from any emission limitation or operating limitation occurred during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), the information in 40 CFR Section 63.6650(e); or</p> <p>c) If you had a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4)</p>	40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 shall report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ, in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A), which is included in Table B of this permit. If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR pt. 63, subp. ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f); Minn. R. 7011.81510
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 424 Generator 2 (4650 Hp)**Associated Items:** CE 731 Oxidation Catalyst

GP 006 Peak-Shaving Generators

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 424

What to do	Why to do it
Submit: due 30 days after 05/02/2013, the manufacturer and model information for CE 731.	Minn. R. 7007.0800, subp. 2
PART 63 SUBPART ZZZZ NESHAP REQUIREMENTS	hdr
APPLICABILITY	hdr
40 CFR Part 63, subpart ZZZZ applies to EU 424 which is a non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. The Permittee shall comply with the applicable emission and operational limitations no later than May 3, 2013.	40 CFR Section 63.6595(a); Minn. R. 7011.8150
EMISSION LIMITS	hdr
Carbon Monoxide: greater than or equal to 70 percent emission reduction. This requirement shall be met except during periods of startup.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2c; Minn. R. 7011.8150
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall minimize the engine's time spent at idle during periods of startup and minimize engine's startup time to a period needed for appropriate and safe loading of EU 424, not to exceed 30 minutes, after which time the emission standard to reduce CO emissions that is applicable to all times other than startup applies.	40 CFR Section 63.6600(d); 40 CFR Section pt. 63, subp. ZZZZ, Table 2c; 40 CFR 63.6625(h); Minn. R. 7011.8150
The Permittee can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.	
Pressure Drop: greater than or equal to 2 inches of water column shall not change across CE 731 at 100 percent load plus or minus 10 percent from the pressure drop across CE 731 that was measured during the initial performance test.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee shall maintain the temperature of the exhaust from EU 424 so that the catalyst inlet Temperature: greater than or equal to 450 degrees F and less than or equal to 1350 degrees F	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.	40 CFR Section 63.6601; 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150 (cont.)
Only diesel fuel that meets the requirements in 40 CFR Section 80.510(b) for nonroad diesel fuel shall be used.	40 CFR Section 63.6604; Minn. R. 7011.8150
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after 05/03/2013 to measure oxygen and CO at the inlet and outlet of the oxidation catalyst, CE 731. The test shall be conducted according to the provisions in 40 CFR Section 63.7(a)(2).	40 CFR Section 63.6610(a); 40 CFR Section 63.6630(b); Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
During the initial performance test, the catalyst pressure drop and catalyst inlet temperature operating limitations shall be established.	
The Permittee shall comply with the following requirements for performance tests for stationary RICE:	40 CFR Section 63.6610(a); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150
i. The Permittee shall measure the oxygen at the inlet and outlet of CE 731 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005). The Permittee may also use Methods 3A and 10 of 40 CFR pt. 60, appendix A as options to ASTM D6522-00 (2005). Measurements to determine oxygen shall be made at the same time as the measurements for CO concentration.	
ii. The Permittee shall measure the CO at the inlet and outlet of CE 731 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005); Methods 3A and 10 of 40 CFR pt. 60, appendix A (options to ASTM D6522-00); Method 320 of 40 CFR pt. 63, appendix A; or ASTM D6348-03. The CO concentration shall be at 15 percent oxygen, dry basis.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-41** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Performance Test: due after the initial performance test. The Permittee shall conduct subsequent performance tests for each CI stationary RICE every 8,760 hrs, or 3 years, whichever comes first.	40 CFR Section 63.6615; 40 CFR pt. 63, subp. ZZZZ, Table 3; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall install a non-resettable hour meter by May 3, 2013, if one is not already installed in order to comply with requirement to conduct subsequent performance testing.	Minn. R. 7007.0800, subp. 2
The Permittee shall conduct each performance test in this permit according to the requirements listed in this permit. For each performance test, the Permittee shall conduct three separate test runs for each performance test required, as specified in 40 CFR Section 63.7(e)(3). Each test run shall last at least 1 hour.	40 CFR Section 63.6620(a), (b), and (d); 40 CFR Section 63.6600; Minn. R. 7011.8150
(1) The Permittee shall use Equation 1 in Appendix C to determine compliance with the percent reduction requirement. (2) The Permittee must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of CE 731 to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide. If pollutant concentrations are to be corrected to 15 percent oxygen and carbon dioxide concentration is measured in lieu of oxygen concentration measurement, a carbon dioxide correction factor is needed. Calculate the carbon dioxide correction factor as described in paragraphs below: i. Calculate the fuel-specific fuel factor value for the fuel burned during the test using values obtained from Method 19 40 CFR Section 5.2, and Equation 2 in Appendix C.	40 CFR Section 63.6620(e); Minn. R. 7011.8150
ii. Calculate the carbon dioxide correction factor for correcting measurement data to 15 percent oxygen using Equation 3 in Appendix C. iii. Using Equation 4 in Appendix C, calculate the NOx and sulfur dioxide gas concentrations adjusted to 15 percent oxygen using carbon dioxide.	40 CFR Section 63.6620(e); Minn. R. 7011.8150 (cont.)
The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value shall be provided.	40 CFR Section 63.6620(i); Minn. R. 7011.8150
COMPLIANCE REQUIREMENTS	hdr
The Permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR pt. 63, subp. ZZZZ at all times.	40 CFR Section 63.6605(a); Minn. R. 7011.8150
At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b); Minn. R. 7011.8150
For each non-emergency stationary CI RICE >500 HP the Permittee has demonstrated initial compliance if; i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. A CPMS has been installed to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature have been recorded during the initial performance test.	40 CFR Section 63.6630(a); 40 CFR pt. 63, subp. ZZZZ, Table 5; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-42**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 40 CFR Section 63.6645(a)(3) and (h)(2).	40 CFR Section 63.6630(c); Minn. R. 7011.8150
<p>The Permittee shall install, operate, and maintain each CPMS according to the requirements listed below:</p> <p>(1) A site-specific monitoring plan shall be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) through (v) below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the facility may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this permit in the facility site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150
<p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>(2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR Section 63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>For EU 424, the Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in 40 CFR pt. 63, subp. ZZZZ, Tables 2b and 2c that apply according the methods specified below;</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a); 40 CFR pt. 63, subp. ZZZZ, Table 6; Minn. R. 7011.8150 (cont.)
The Permittee shall comply with the applicable General Provisions in 40 CFR Section 63.1 through 63.15, as stated in 40 CFR pt. 63, subp. ZZZZ, Table 8.	40 CFR Section 63.6665; 40 CFR pt. 63, subp. ZZZZ, Table 8; Minn. R. 7011.8150
MONITORING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-43**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee shall monitor and collect data according to the paragraphs below:</p> <p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, EU 424 shall be monitored continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels shall not be used. However, all the valid data collected during all other periods shall be used.</p>	40 CFR Section 63.6635; Minn. R. 7011.81550
OPERATION AND MAINTENANCE REQUIREMENTS	hdr
<p>The Permittee shall comply with either 1) or 2) below. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g); Minn. R. 7011.8150
RECORDKEEPING REQUIREMENTS	hdr
<p>The Permittee shall keep the following records:</p> <p>(1) A copy of each notification and report that was submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150
<p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150 (cont.)
<p>For each CPMS, the Permittee shall keep the records listed below:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b); Minn. R. 7011.8150
<p>Records shall be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>Each record shall be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-44**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall keep records that are required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.	40 CFR Section 63.6655(d); Minn. R. 7011.8150
NOTIFICATIONS AND REPORTING REQUIREMENTS	hdr
Each instance in which the Permittee did not meet each applicable emission limitation or operating limitation in Tables 2b and 2c shall be reported. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the Permittee shall also conduct a performance test to demonstrate that the required emission limitation applicable to the stationary RICE is met.	40 CFR Section 63.6640(b); Minn. R. 7011.8150
Each instance in which the Permittee does not meet the applicable requirements listed in 40 CFR pt. 63, subp. ZZZZ, Table 8 also shall be reported.	40 CFR Section 63.6640(e); Minn. R. 7011.8150
The Permittee shall meet the notification requirements in 40 CFR Section 63.6645 and in 40 CFR part 63, subp. A.	40 CFR Section 63.6595(c); Minn. R. 7011.8150
The Permittee shall submit all of the notifications in 40 CFR Section Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.	40 CFR Section 63.6645; Minn. R. 7011.8150
<p>Unless the Administrator has approved a different schedule for submission of reports under 40 CFR Section 63.10(a), the Permittee shall submit each compliance report that applies by the date in 40 CFR pt.63, subp. ZZZZ, Table 7 and according to the requirements listed below:</p> <p>(1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on 05/03/2013 and ending on December 31.</p> <p>(2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than January 31.</p> <p>(3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150
<p>(4) For semiannual Compliance reports, each subsequent Compliance report shall be postmarked or delivered no later than July 31.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of 40 CFR Section 63.6650.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150 (cont.)
<p>The compliance report shall contain the following:</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-45**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>(5) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150 (cont.)
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE the Permittee shall include information in 40 CFR Section 63.6650(c) and the information listed below:</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150
<p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150 (cont.)
<p>The compliance report must also contain:</p> <p>a) If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p> <p>b) If a deviation from any emission limitation or operating limitation occurred during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), the information in 40 CFR Section 63.6650(e); or</p> <p>c) If you had a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4)</p>	40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 shall report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ, in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR pt. 63, subp. ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f); Minn. R. 7011.81510
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-47** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 425 Generator 3 (4650 Hp)**Associated Items:** CE 732 Oxidation Catalyst

GP 006 Peak-Shaving Generators

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 425

What to do	Why to do it
Submit: due 30 days after 05/02/2013, the manufacturer and model information for CE 732.	Minn. R. 7007.0800, subp. 2
PART 63 SUBPART ZZZZ NESHAP REQUIREMENTS	hdr
APPLICABILITY	hdr
40 CFR Part 63, subpart ZZZZ applies to EU 425 which is a non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. The Permittee shall comply with the applicable emission and operational limitations no later than May 3, 2013.	40 CFR Section 63.6595(a); Minn. R. 7011.8150
EMISSION LIMITS	hdr
Carbon Monoxide: greater than or equal to 70 percent emission reduction. This requirement shall be met except during periods of startup.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2c; Minn. R. 7011.8150
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall minimize the engine's time spent at idle during periods of startup and minimize the engine's startup time to a period needed for appropriate and safe loading of EU 423, not to exceed 30 minutes, after which time the emission standard to reduce CO emissions that is applicable to all times other than startup applies.	40 CFR Section 63.6600(d); 40 CFR Section pt. 63, subp. ZZZZ, Table 2c; 40 CFR 63.6625(h); Minn. R. 7011.8150
The Permittee can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.	
Pressure Drop: greater than or equal to 2 inches of water column shall not change across CE 732 at 100 percent load plus or minus 10 percent from the pressure drop across CE 732 that was measured during the initial performance test.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee shall maintain the temperature of the exhaust from EU 425 so that the catalyst inlet Temperature: greater than or equal to 450 degrees F and less than or equal to 1350 degrees F	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.	40 CFR Section 63.6601; 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150 (cont.)
Only diesel fuel that meets the requirements in 40 CFR Section 80.510(b) for nonroad diesel fuel shall be used.	40 CFR Section 63.6604; Minn. R. 7011.8150
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after 05/03/2013 to measure oxygen and CO at the inlet and outlet of the oxidation catalyst, CE 732. The test shall be conducted according to the provisions in 40 CFR Section 63.7(a)(2).	40 CFR Section 63.6610(a); 40 CFR Section 63.6630(b); Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
During the initial performance test, the catalyst pressure drop and catalyst inlet temperature operating limitations shall be established.	
The Permittee shall comply with the following requirements for performance tests for stationary RICE:	40 CFR Section 63.6610(a); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150
i. The Permittee shall measure the oxygen at the inlet and outlet of CE 732 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005). The Permittee may also use Methods 3A and 10 of 40 CFR pt. 60, appendix A as options to ASTM D6522-00 (2005). Measurements to determine oxygen shall be made at the same time as the measurements for CO concentration.	
ii. The Permittee shall measure the CO at the inlet and outlet of CE 732 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005); Methods 3A and 10 of 40 CFR pt. 60, appendix A (options to ASTM D6522-00); Method 320 of 40 CFR pt. 63, appendix A; or ASTM D6348-03. The CO concentration shall be at 15 percent oxygen, dry basis.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-48**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Performance Test: due after the initial performance test. The Permittee shall conduct subsequent performance tests for each CI stationary RICE every 8,760 hrs, or 3 years, whichever comes first.	40 CFR Section 63.6615; 40 CFR pt. 63, subp. ZZZZ, Table 3; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall install a non-resettable hour meter by May 3, 2013, if one is not already installed in order to comply with requirement to conduct subsequent performance testing.	Minn. R. 7007.0800, subp. 2
The Permittee shall conduct each performance test in this permit according to the requirements listed in this permit. For each performance test, the Permittee shall conduct three separate test runs for each performance test required, as specified in 40 CFR Section 63.7(e)(3). Each test run shall last at least 1 hour.	40 CFR Section 63.6620(a), (b), and (d); 40 CFR Section 63.6600; Minn. R. 7011.8150
(1) The Permittee shall use Equation 1 in Appendix C to determine compliance with the percent reduction requirement. (2) The Permittee must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of CE 732 to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide. If pollutant concentrations are to be corrected to 15 percent oxygen and carbon dioxide concentration is measured in lieu of oxygen concentration measurement, a carbon dioxide correction factor is needed. Calculate the carbon dioxide correction factor as described in paragraphs below: i. Calculate the fuel-specific fuel factor value for the fuel burned during the test using values obtained from Method 19 40 CFR Section 5.2, and Equation 2 in Appendix C.	40 CFR Section 63.6620(e); Minn. R. 7011.8150
ii. Calculate the carbon dioxide correction factor for correcting measurement data to 15 percent oxygen using Equation 3 in Appendix C. iii. Using Equation 4 in Appendix C, calculate the NOx and sulfur dioxide gas concentrations adjusted to 15 percent oxygen using carbon dioxide.	40 CFR Section 63.6620(e); Minn. R. 7011.8150 (cont.)
The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value shall be provided.	40 CFR Section 63.6620(i); Minn. R. 7011.8150
COMPLIANCE REQUIREMENTS	hdr
The Permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR pt. 63, subp. ZZZZ at all times.	40 CFR Section 63.6605(a); Minn. R. 7011.8150
At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b); Minn. R. 7011.8150
For each non-emergency stationary CI RICE >500 HP the Permittee has demonstrated initial compliance if; i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. A CPMS has been installed to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature have been recorded during the initial performance test.	40 CFR Section 63.6630(a); 40 CFR pt. 63, subp. ZZZZ, Table 5; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-49**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 40 CFR Section 63.6645(a)(3) and (h)(2).	40 CFR Section 63.6630(c); Minn. R. 7011.8150
<p>The Permittee shall install, operate, and maintain each CPMS according to the requirements listed below:</p> <p>(1) A site-specific monitoring plan shall be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) through (v) below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the facility may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this permit in the facility site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150
<p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>(2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR Section 63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>For EU 425, the Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in 40 CFR pt. 63, subp. ZZZZ, Tables 2b and 2c that apply according the methods specified below;</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a); 40 CFR pt. 63, subp. ZZZZ, Table 6; Minn. R. 7011.8150 (cont.)
The Permittee shall comply with the applicable General Provisions in 40 CFR Section 63.1 through 63.15, as stated in 40 CFR pt. 63, subp. ZZZZ, Table 8.	40 CFR Section 63.6665; 40 CFR pt. 63, subp. ZZZZ, Table 8; Minn. R. 7011.8150
MONITORING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-50**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee shall monitor and collect data according to the paragraphs below:</p> <p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, EU 425 shall be monitored continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels shall not be used. However, all the valid data collected during all other periods shall be used.</p>	40 CFR Section 63.6635; Minn. R. 7011.81550
OPERATION AND MAINTENANCE REQUIREMENTS	hdr
<p>The Permittee shall comply with either 1) or 2) below. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g); Minn. R. 7011.8150
RECORDKEEPING REQUIREMENTS	hdr
<p>The Permittee shall keep the following records:</p> <p>(1) A copy of each notification and report that was submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150
<p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150 (cont.)
<p>For each CPMS, the Permittee shall keep the records listed below:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b); Minn. R. 7011.8150
<p>Records shall be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>Each record shall be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-51** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall keep records that are required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.	40 CFR Section 63.6655(d); Minn. R. 7011.8150
NOTIFICATIONS AND REPORTING REQUIREMENTS	hdr
Each instance in which the Permittee did not meet each applicable emission limitation or operating limitation in Tables 2b and 2c shall be reported. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the Permittee shall also conduct a performance test to demonstrate that the required emission limitation applicable to the stationary RICE is met.	40 CFR Section 63.6640(b); Minn. R. 7011.8150
Each instance in which the Permittee does not meet the applicable requirements listed in 40 CFR pt. 63, subp. ZZZZ, Table 8 also shall be reported.	40 CFR Section 63.6640(e); Minn. R. 7011.8150
The Permittee shall meet the notification requirements in 40 CFR Section 63.6645 and in 40 CFR part 63, subp. A.	40 CFR Section 63.6595(c); Minn. R. 7011.8150
The Permittee shall submit all of the notifications in 40 CFR Section Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.	40 CFR Section 63.6645; Minn. R. 7011.8150
<p>Unless the Administrator has approved a different schedule for submission of reports under 40 CFR Section 63.10(a), the Permittee shall submit each compliance report that applies by the date in 40 CFR pt.63, subp. ZZZZ, Table 7 and according to the requirements listed below:</p> <p>(1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on 05/03/2013 and ending on December 31.</p> <p>(2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than January 31.</p> <p>(3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150
<p>(4) For semiannual Compliance reports, each subsequent Compliance report shall be postmarked or delivered no later than July 31.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of 40 CFR Section 63.6650.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150 (cont.)
<p>The compliance report shall contain the following:</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-52**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>(5) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150 (cont.)
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE the Permittee shall include information in 40 CFR Section 63.6650(c) and the information listed below:</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150
<p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150 (cont.)
<p>The compliance report must also contain:</p> <p>a) If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p> <p>b) If a deviation from any emission limitation or operating limitation occurred during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), the information in 40 CFR Section 63.6650(e); or</p> <p>c) If you had a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4)</p>	40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 shall report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ, in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR pt. 63, subp. ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f); Minn. R. 7011.81510
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-54**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 426 Generator 4 (4650 Hp)**Associated Items:** CE 733 Oxidation Catalyst

GP 006 Peak-Shaving Generators

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 426

What to do	Why to do it
Submit: due 30 days after 05/02/2013, the manufacturer and model information for CE 733.	Minn. R. 7007.0800, subp. 2
PART 63 SUBPART ZZZZ NESHAP REQUIREMENTS	hdr
APPLICABILITY	hdr
40 CFR Part 63, subpart ZZZZ applies to EU 426 which is a non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. The Permittee shall comply with the applicable emission and operational limitations no later than May 3, 2013.	40 CFR Section 63.6595(a); Minn. R. 7011.8150
EMISSION LIMITS	hdr
Carbon Monoxide: greater than or equal to 70 percent emission reduction. This requirement shall be met except during periods of startup.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2c; Minn. R. 7011.8150
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall minimize the engine's time spent at idle during periods of startup and minimize the engine's startup time to a period needed for appropriate and safe loading of EU 423, not to exceed 30 minutes, after which time the emission standard to reduce CO emissions that is applicable to all times other than startup applies.	40 CFR Section 63.6600(d); 40 CFR Section pt. 63, subp. ZZZZ, Table 2c; 40 CFR 63.6625(h); Minn. R. 7011.8150
The Permittee can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.	
Pressure Drop: greater than or equal to 2 inches of water column shall not change across CE 733 at 100 percent load plus or minus 10 percent from the pressure drop across CE 733 that was measured during the initial performance test.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee shall maintain the temperature of the exhaust from EU 426 so that the catalyst inlet Temperature: greater than or equal to 450 degrees F and less than or equal to 1350 degrees F	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.	40 CFR Section 63.6601; 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150 (cont.)
Only diesel fuel that meets the requirements in 40 CFR Section 80.510(b) for nonroad diesel fuel shall be used.	40 CFR Section 63.6604; Minn. R. 7011.8150
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after 05/03/2013 to measure oxygen and CO at the inlet and outlet of the oxidation catalyst, CE 733. The test shall be conducted according to the provisions in 40 CFR Section 63.7(a)(2).	40 CFR Section 63.6610(a); 40 CFR Section 63.6630(b); Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
During the initial performance test, the catalyst pressure drop and catalyst inlet temperature operating limitations shall be established.	
The Permittee shall comply with the following requirements for performance tests for stationary RICE:	40 CFR Section 63.6610(a); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150
i. The Permittee shall measure the oxygen at the inlet and outlet of CE 733 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005). The Permittee may also use Methods 3A and 10 of 40 CFR pt. 60, appendix A as options to ASTM D6522-00 (2005). Measurements to determine oxygen shall be made at the same time as the measurements for CO concentration.	
ii. The Permittee shall measure the CO at the inlet and outlet of CE 733 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005); Methods 3A and 10 of 40 CFR pt. 60, appendix A (options to ASTM D6522-00); Method 320 of 40 CFR pt. 63, appendix A; or ASTM D6348-03. The CO concentration shall be at 15 percent oxygen, dry basis.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-55** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Performance Test: due after the initial performance test. The Permittee shall conduct subsequent performance tests for each CI stationary RICE every 8,760 hrs, or 3 years, whichever comes first.	40 CFR Section 63.6615; 40 CFR pt. 63, subp. ZZZZ, Table 3; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall install a non-resettable hour meter by May 3, 2013, if one is not already installed in order to comply with requirement to conduct subsequent performance testing.	Minn. R. 7007.0800, subp. 2
The Permittee shall conduct each performance test in this permit according to the requirements listed in this permit. For each performance test, the Permittee shall conduct three separate test runs for each performance test required, as specified in 40 CFR Section 63.7(e)(3). Each test run shall last at least 1 hour.	40 CFR Section 63.6620(a), (b), and (d); 40 CFR Section 63.6600; Minn. R. 7011.8150
(1) The Permittee shall use Equation 1 in Appendix C to determine compliance with the percent reduction requirement. (2) The Permittee must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of CE 733 to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide. If pollutant concentrations are to be corrected to 15 percent oxygen and carbon dioxide concentration is measured in lieu of oxygen concentration measurement, a carbon dioxide correction factor is needed. Calculate the carbon dioxide correction factor as described in paragraphs below: i. Calculate the fuel-specific fuel factor value for the fuel burned during the test using values obtained from Method 19 40 CFR Section 5.2, and Equation 2 in Appendix C.	40 CFR Section 63.6620(e); Minn. R. 7011.8150
ii. Calculate the carbon dioxide correction factor for correcting measurement data to 15 percent oxygen using Equation 3 in Appendix C. iii. Using Equation 4 in Appendix C, calculate the NOx and sulfur dioxide gas concentrations adjusted to 15 percent oxygen using carbon dioxide.	40 CFR Section 63.6620(e); Minn. R. 7011.8150 (cont.)
The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value shall be provided.	40 CFR Section 63.6620(i); Minn. R. 7011.8150
COMPLIANCE REQUIREMENTS	hdr
The Permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR pt. 63, subp. ZZZZ at all times.	40 CFR Section 63.6605(a); Minn. R. 7011.8150
At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b); Minn. R. 7011.8150
For each non-emergency stationary CI RICE >500 HP the Permittee has demonstrated initial compliance if; i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. A CPMS has been installed to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature have been recorded during the initial performance test.	40 CFR Section 63.6630(a); 40 CFR pt. 63, subp. ZZZZ, Table 5; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-56**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 40 CFR Section 63.6645(a)(3) and (h)(2).	40 CFR Section 63.6630(c); Minn. R. 7011.8150
<p>The Permittee shall install, operate, and maintain each CPMS according to the requirements listed below:</p> <p>(1) A site-specific monitoring plan shall be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) through (v) below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the facility may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this permit in the facility site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150
<p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>(2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR Section 63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>For EU 426, the Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in 40 CFR pt. 63, subp. ZZZZ, Tables 2b and 2c that apply according the methods specified below;</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a); 40 CFR pt. 63, subp. ZZZZ, Table 6; Minn. R. 7011.8150 (cont.)
The Permittee shall comply with the applicable General Provisions in 40 CFR Section 63.1 through 63.15, as stated in 40 CFR pt. 63, subp. ZZZZ, Table 8.	40 CFR Section 63.6665; 40 CFR pt. 63, subp. ZZZZ, Table 8; Minn. R. 7011.8150
MONITORING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-57**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee shall monitor and collect data according to the paragraphs below:</p> <p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, EU 426 shall be monitored continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels shall not be used. However, all the valid data collected during all other periods shall be used.</p>	40 CFR Section 63.6635; Minn. R. 7011.81550
OPERATION AND MAINTENANCE REQUIREMENTS	hdr
<p>The Permittee shall comply with either 1) or 2) below. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g); Minn. R. 7011.8150
RECORDKEEPING REQUIREMENTS	hdr
<p>The Permittee shall keep the following records:</p> <p>(1) A copy of each notification and report that was submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150
<p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150 (cont.)
<p>For each CPMS, the Permittee shall keep the records listed below:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b); Minn. R. 7011.8150
<p>Records shall be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>Each record shall be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-58**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall keep records that are required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.	40 CFR Section 63.6655(d); Minn. R. 7011.8150
NOTIFICATIONS AND REPORTING REQUIREMENTS	hdr
Each instance in which the Permittee did not meet each applicable emission limitation or operating limitation in Tables 2b and 2c shall be reported. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the Permittee shall also conduct a performance test to demonstrate that the required emission limitation applicable to the stationary RICE is met.	40 CFR Section 63.6640(b); Minn. R. 7011.8150
Each instance in which the Permittee does not meet the applicable requirements listed in 40 CFR pt. 63, subp. ZZZZ, Table 8 also shall be reported.	40 CFR Section 63.6640(e); Minn. R. 7011.8150
The Permittee shall meet the notification requirements in 40 CFR Section 63.6645 and in 40 CFR part 63, subp. A.	40 CFR Section 63.6595(c); Minn. R. 7011.8150
The Permittee shall submit all of the notifications in 40 CFR Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.	40 CFR Section 63.6645; Minn. R. 7011.8150
<p>Unless the Administrator has approved a different schedule for submission of reports under 40 CFR Section 63.10(a), the Permittee shall submit each compliance report that applies by the date in 40 CFR pt.63, subp. ZZZZ, Table 7 and according to the requirements listed below:</p> <p>(1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on 05/03/2013 and ending on December 31.</p> <p>(2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than January 31.</p> <p>(3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150
<p>(4) For semiannual Compliance reports, each subsequent Compliance report shall be postmarked or delivered no later than July 31.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of 40 CFR Section 63.6650.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150 (cont.)
<p>The compliance report shall contain the following:</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-59**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>(5) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150 (cont.)
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE the Permittee shall include information in 40 CFR Section 63.6650(c) and the information listed below:</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150
<p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150 (cont.)
<p>The compliance report must also contain:</p> <p>a) If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p> <p>b) If a deviation from any emission limitation or operating limitation occurred during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), the information in 40 CFR Section 63.6650(e); or</p> <p>c) If you had a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4)</p>	40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 shall report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ, in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR pt. 63, subp. ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f); Minn. R. 7011.81510
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-61** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: EU 656 Generator 5 (4650 Hp)**Associated Items:** CE 734 Oxidation Catalyst

GP 006 Peak-Shaving Generators

GP 007 Emission Limits for Test Cells, Generators, and Combustion Units

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

SV 656 Generator 5

What to do	Why to do it
Submit: due 30 days after 05/02/2013, the manufacturer and model information for CE 734.	Minn. R. 7007.0800, subp. 2
PART 63 SUBPART ZZZZ NESHAP REQUIREMENTS	hdr
APPLICABILITY	hdr
40 CFR Part 63, subpart ZZZZ applies to EU 656 which is a non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. The Permittee shall comply with the applicable emission and operational limitations no later than May 3, 2013.	40 CFR Section 63.6595(a); Minn. R. 7011.8150
EMISSION LIMITS	hdr
Carbon Monoxide: greater than or equal to 70 percent emission reduction. This requirement shall be met except during periods of startup.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2c; Minn. R. 7011.8150
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall minimize the engine's time spent at idle during periods of startup and minimize the engine's startup time to a period needed for appropriate and safe loading of EU 423, not to exceed 30 minutes, after which time the emission standard to reduce CO emissions that is applicable to all times other than startup applies.	40 CFR Section 63.6600(d); 40 CFR Section pt. 63, subp. ZZZZ, Table 2c; 40 CFR 63.6625(h); Minn. R. 7011.8150
The Permittee can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.	
Pressure Drop: greater than or equal to 2 inches of water column shall not change across CE 734 at 100 percent load plus or minus 10 percent from the pressure drop across CE 734 that was measured during the initial performance test.	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee shall maintain the temperature of the exhaust from EU 656 so that the catalyst inlet Temperature: greater than or equal to 450 degrees F and less than or equal to 1350 degrees F	40 CFR Section 63.6600(d); 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150
The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.	40 CFR Section 63.6601; 40 CFR pt. 63, subp. ZZZZ, Table 2b; Minn. R. 7011.8150 (cont.)
Only diesel fuel that meets the requirements in 40 CFR Section 80.510(b) for nonroad diesel fuel shall be used.	40 CFR Section 63.6604; Minn. R. 7011.8150
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after 05/03/2013 to measure oxygen and CO at the inlet and outlet of the oxidation catalyst, CE 734. The test shall be conducted according to the provisions in 40 CFR Section 63.7(a)(2).	40 CFR Section 63.6610(a); 40 CFR Section 63.6630(b); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
During the initial performance test, the catalyst pressure drop and catalyst inlet temperature operating limitations shall be established.	
The Permittee shall comply with the following requirements for performance tests for stationary RICE:	40 CFR Section 63.6610(a); 40 CFR pt. 63, subp. ZZZZ, Table 4; Minn. R. 7011.8150
i. The Permittee shall measure the oxygen at the inlet and outlet of the CE 734 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005). The Permittee may also use Methods 3A and 10 of 40 CFR pt. 60, appendix A as options to ASTM D6522-00 (2005). Measurements to determine oxygen shall be made at the same time as the measurements for CO concentration.	
ii. The Permittee shall measure the CO at the inlet and outlet of the CE 734 using a portable CO and oxygen analyzer according to ASTM D6522-00 (2005); Methods 3A and 10 of 40 CFR pt. 60, appendix A (options to ASTM D6522-00); Method 320 of 40 CFR pt. 63, appendix A; or ASTM D6348-03. The CO concentration shall be at 15 percent oxygen, dry basis.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-62** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Performance Test: due after the initial performance test. The Permittee shall conduct subsequent performance tests for each CI stationary RICE every 8,760 hrs, or 3 years, whichever comes first.	40 CFR Section 63.6615; 40 CFR pt. 63, subp. ZZZZ, Table 3; Minn. R. 7011.8150; Minn. R. 7017.2020, subp. 1
The Permittee shall conduct each performance test in this permit according to the requirements listed in this permit. For each performance test, the Permittee shall conduct three separate test runs for each performance test required, as specified in 40 CFR Section 63.7(e)(3). Each test run shall last at least 1 hour.	40 CFR Section 63.6620(a), (b), and (d); 40 CFR Section 63.6600; Minn. R. 7011.8150
The Permittee shall install a non-resettable hour meter by May 3, 2013, if one is not already installed in order to comply with requirement to conduct subsequent performance testing.	Minn. R. 7007.0800, subp. 2
(1) The Permittee shall use Equation 1 in Appendix C to determine compliance with the percent reduction requirement. (2) The Permittee must normalize the carbon monoxide (CO) concentrations at the inlet and outlet of CE 734 to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide. If pollutant concentrations are to be corrected to 15 percent oxygen and carbon dioxide concentration is measured in lieu of oxygen concentration measurement, a carbon dioxide correction factor is needed. Calculate the carbon dioxide correction factor as described in paragraphs below: i. Calculate the fuel-specific fuel factor value for the fuel burned during the test using values obtained from Method 19 40 CFR Section 5.2, and Equation 2 in Appendix C.	40 CFR Section 63.6620(e); Minn. R. 7011.8150
ii. Calculate the carbon dioxide correction factor for correcting measurement data to 15 percent oxygen using Equation 3 in Appendix C. iii. Using Equation 4 in Appendix C, calculate the NO _x and sulfur dioxide gas concentrations adjusted to 15 percent oxygen using carbon dioxide.	40 CFR Section 63.6620(e); Minn. R. 7011.8150 (cont.)
The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value shall be provided.	40 CFR Section 63.6620(i); Minn. R. 7011.8150
COMPLIANCE REQUIREMENTS	hdr
The Permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR pt. 63, subp. ZZZZ at all times.	40 CFR Section 63.6605(a); Minn. R. 7011.8150
At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.6605(b); Minn. R. 7011.8150
For each non-emergency stationary CI RICE >500 HP the Permittee has demonstrated initial compliance if; i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. A CPMS has been installed to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR Section 63.6625(b); and iii. The catalyst pressure drop and catalyst inlet temperature have been recorded during the initial performance test.	40 CFR Section 63.6630(a); 40 CFR pt. 63, subp. ZZZZ, Table 5; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-63**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to 40 CFR Section 63.6645(a)(3) and (h)(2).	40 CFR Section 63.6630(c); Minn. R. 7011.8150
<p>The Permittee shall install, operate, and maintain each CPMS according to the requirements listed below:</p> <p>(1) A site-specific monitoring plan shall be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in (i) through (v) below and in 40 CFR Section 63.8(d). As specified in 40 CFR Section 63.8(f)(4), the facility may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this permit in the facility site-specific monitoring plan.</p> <p>(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;</p> <p>(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150
<p>(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;</p> <p>(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR Section 63.8(c)(1) and (c)(3); and</p> <p>(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>(2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.</p> <p>(3) The CPMS must collect data at least once every 15 minutes (see also 40 CFR Section 63.6635).</p> <p>(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.</p> <p>(5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.</p> <p>(6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	40 CFR Section 63.6625(b); Minn. R. 7011.8150 (cont.)
<p>For EU 656, the Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in 40 CFR pt. 63, subp. ZZZZ, Tables 2b and 2c that apply according the methods specified below;</p> <p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO to demonstrate that the required CO percent reduction is achieved or that emissions remain at or below the CO concentration limit; and</p> <p>ii. Collecting the catalyst inlet temperature data according to 40 CFR Section 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>	40 CFR Section 63.6640(a); 40 CFR pt. 63, subp. ZZZZ, Table 6; Minn. R. 7011.8150 (cont.)
The Permittee shall comply with the applicable General Provisions in 40 CFR Section 63.1 through 63.15, as stated in 40 CFR pt. 63, subp. ZZZZ, Table 8.	40 CFR Section 63.6665; 40 CFR pt. 63, subp. ZZZZ, Table 8; Minn. R. 7011.8150
MONITORING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-64**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>The Permittee shall monitor and collect data according to the paragraphs below:</p> <p>Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, EU 656 shall be monitored continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels shall not be used. However, all the valid data collected during all other periods shall be used.</p>	40 CFR Section 63.6635; Minn. R. 7011.81550
OPERATION AND MAINTENANCE REQUIREMENTS	hdr
<p>The Permittee shall comply with either 1) or 2) below. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.</p> <p>1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or</p> <p>2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.</p>	40 CFR Section 63.6625(g); Minn. R. 7011.8150
RECORDKEEPING REQUIREMENTS	hdr
<p>The Permittee shall keep the following records:</p> <p>(1) A copy of each notification and report that was submitted to comply with 40 CFR pt. 63, subp. ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR Section 63.10(b)(2)(xiv).</p> <p>(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(3) Records of performance tests and performance evaluations as required in 40 CFR Section 63.10(b)(2)(viii).</p> <p>(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150
<p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation</p>	40 CFR Section 63.6655(a); Minn. R. 7011.8150 (cont.)
<p>For each CPMS, the Permittee shall keep the records listed below:</p> <p>(1) Records described in 40 CFR Section 63.10(b)(2)(vi) through (xi).</p> <p>(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR Section 63.8(d)(3).</p> <p>(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR Section 63.8(f)(6)(i), if applicable.</p>	40 CFR Section 63.6655(b); Minn. R. 7011.8150
<p>Records shall be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>Each record shall be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1).</p>	40 CFR Section 63.6660; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-65** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

The Permittee shall keep records that are required in 40 CFR pt. 63, subp. ZZZZ, Table 6 to show continuous compliance with each applicable emission or operating limitation.	40 CFR Section 63.6655(d); Minn. R. 7011.8150
NOTIFICATIONS AND REPORTING REQUIREMENTS	hdr
Each instance in which the Permittee did not meet each applicable emission limitation or operating limitation in Tables 2b and 2c shall be reported. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in 40 CFR Section 63.6650. If the catalyst is changed, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the Permittee shall also conduct a performance test to demonstrate that the required emission limitation applicable to the stationary RICE is met.	40 CFR Section 63.6640(b); Minn. R. 7011.8150
Each instance in which the Permittee does not meet the applicable requirements listed in 40 CFR pt. 63, subp. ZZZZ, Table 8 also shall be reported.	40 CFR Section 63.6640(e); Minn. R. 7011.8150
The Permittee shall meet the notification requirements in 40 CFR Section 63.6645 and in 40 CFR part 63, subp. A.	40 CFR Section 63.6595(c); Minn. R. 7011.8150
The Permittee shall submit all of the notifications in 40 CFR Section Section 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified.	40 CFR Section 63.6645; Minn. R. 7011.8150
<p>Unless the Administrator has approved a different schedule for submission of reports under 40 CFR Section 63.10(a), the Permittee shall submit each compliance report that applies by the date in 40 CFR pt.63, subp. ZZZZ, Table 7 and according to the requirements listed below:</p> <p>(1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning on 05/03/2013 and ending on December 31.</p> <p>(2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than January 31.</p> <p>(3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150
<p>(4) For semiannual Compliance reports, each subsequent Compliance report shall be postmarked or delivered no later than July 31.</p> <p>(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of 40 CFR Section 63.6650.</p>	40 CFR Section 63.6650(a) and (b); 40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150 (cont.)
<p>The compliance report shall contain the following:</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.6605(b), including actions taken to correct a malfunction.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-66**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

<p>(5) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.</p> <p>(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.</p>	40 CFR Section 63.6650(c); Minn. R. 7011.8150 (cont.)
<p>For each deviation from an emission or operating limitation occurring for a stationary RICE the Permittee shall include information in 40 CFR Section 63.6650(c) and the information listed below:</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR Section 63.8(c)(8).</p> <p>(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.</p> <p>(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150
<p>(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.</p> <p>(8) An identification of each parameter and pollutant that was monitored at the stationary RICE.</p> <p>(9) A brief description of the stationary RICE.</p> <p>(10) A brief description of the CMS.</p> <p>(11) The date of the latest CMS certification or audit.</p> <p>(12) A description of any changes in CMS, processes, or controls since the last reporting period.</p>	40 CFR Section 63.6650(e); Minn. R. 7011.8150 (cont.)
<p>The compliance report must also contain:</p> <p>a) If there are no deviations from any applicable emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p> <p>b) If a deviation from any emission limitation or operating limitation occurred during the reporting period, the information in 40 CFR Section 63.6650(d). If there were periods during which the CMS, including CPMS, was out-of-control, as specified in 40 CFR Section 63.8(c)(7), the information in 40 CFR Section 63.6650(e); or</p> <p>c) If you had a malfunction during the reporting period, the information in 40 CFR Section 63.6650(c)(4)</p>	40 CFR pt. 63, subp. ZZZZ, Table 7; Minn. R. 7011.8150

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

Each affected source that has obtained a title V operating permit pursuant to 40 CFR pt. 70 shall report all deviations as defined in 40 CFR pt. 63, subp. ZZZZ, in the semiannual monitoring report required by 40 CFR Section 70.6 (a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR pt. 63, subp. ZZZZ, Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR Section 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR pt. 63, subp. ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.	40 CFR Section 63.6650(f); Minn. R. 7011.81510
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-68**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: CE 155 Water Curtain - Use for Water Wash Paint Booths**Associated Items:** EU 155 Big Paint Booth

GP 004 Coating Equipment

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

GP 010 Pre-Cap Control Equipment

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE 155 such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 55.7 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 155 such that it achieves an overall control efficiency, for PM < 10 micron: greater than or equal to 55.7 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 155 such that it achieves an overall control efficiency, for PM < 2.5 micron: greater than or equal to 55.7 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment any time that any process equipment controlled by the control equipment is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: The Permittee shall conduct daily inspections of the control equipment during days when the corresponding spray painting emission unit is in production. The daily inspections shall confirm that the water wash spray paint booth fan and water circulation system is started up and in operation before painting operations begin. The daily inspection will include a visual check of system water level to assure sufficient water is present and circulating in the system for proper operation. The Permittee shall maintain records of each inspection.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-69**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: CE 164 Water Curtain - Use for Water Wash Paint Booths

Associated Items: GP 004 Coating Equipment
 GP 008 Particulate Matter Emission Limits
 GP 009 VOC Emission Limits
 GP 010 Pre-Cap Control Equipment

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE 164 such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 59.2 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 164 such that it achieves an overall control efficiency, for PM < 10 micron: greater than or equal to 59.2 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 164 such that it achieves an overall control efficiency, for PM < 2.5 micron: greater than or equal to 59.2 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment any time that any process equipment controlled by the control equipment is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: The Permittee shall conduct daily inspections of the control equipment during days when the corresponding spray painting emission unit is in production. The daily inspections shall confirm that the water wash spray paint booth fan and water circulation system is started up and in operation before painting operations begin. The daily inspection will include a visual check of system water level to assure sufficient water is present and circulating in the system for proper operation. The Permittee shall maintain records of each inspection.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-70** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: CE 727 Mat or Panel Filter

Associated Items: EU 666 Total Enclosure Dry Paint Booth

GP 004 Coating Equipment

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

GP 010 Pre-Cap Control Equipment

What to do	Why to do it
EMISION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE 727 such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 727 such that it achieves an overall control efficiency, for PM < 10 micron: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 727 such that it achieves an overall control efficiency, for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Pressure Drop: greater than or equal to 0.01 inches of water column and less than or equal to 0.3 inches of water column	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
MONITORING AND RECORDKEEPING	hdr
The Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-71** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: CE 728 Mat or Panel Filter**Associated Items:** EU 668 AMMPS Paint Booth

GP 004 Coating Equipment

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

GP 010 Pre-Cap Control Equipment

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE 728 such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
The Permittee shall operate and maintain CE 728 such that it achieves an overall control efficiency, for PM < 10 micron: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
The Permittee shall operate and maintain CE 728 such that it achieves an overall control efficiency, for PM < 2.5 micron: greater than or equal to 92 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
The Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 & 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-72**

02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Subject Item: CE 729 Mat or Panel Filter**Associated Items:** EU 669 AMMPS Stencil Booth

GP 004 Coating Equipment

GP 008 Particulate Matter Emission Limits

GP 009 VOC Emission Limits

GP 010 Pre-Cap Control Equipment

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain CE 729 such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 73.6 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 729 such that it achieves an overall control efficiency, for PM < 10 micron: greater than or equal to 73.6 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain CE 729 such that it achieves an overall control efficiency, for PM < 2.5 micron: greater than or equal to 73.6 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
The Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Title I Condition: To avoid classification as a major source or modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the components for each control equipment. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If any control equipment or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the control equipment. The Permittee shall keep a record of the type and date of any corrective action taken for each control equipment.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain each control equipment 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
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE B: SUBMITTALS**B-1** 02/12/13

Facility Name: Cummins Power Generation
Permit Number: 00300019 - 003

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

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

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 parts 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

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Send any application for a permit or permit amendment to:

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of compliance status	due 30 days after Demonstration Completion but before the close of business on the 30th day for the initial compliance demonstration to install a CPMS to continuously monitor catalyst inlet temperature.	EU424, EU425, EU426, EU656
Notification of compliance status	due 30 days after Demonstration Completion but before the close of business on the 30th day, for the initial compliance demonstration to install a CPMS to continuously monitor catalyst inlet temperature.	EU423
Notification of compliance status	due 60 days after Initial Performance Test but before the close of business on the 60th day, and also 60 days after any subsequent performance tests but before the close of business on the 60th day as specified in 40 CFR Section 63.9(h)(2)(ii).	EU423, EU424, EU425, EU426, EU656
Notification of compliance status	due 60 days after Performance Test but before the close of business on the 60th day for the initial compliance demonstration to achieve the required CO percent reduction through the average reduction of emissions of CO determined from the initial performance test, according to 40 CFR Section 63.10(d)(2).	EU424
Notification of compliance status	due 60 days after Performance Test but before the close of business on the 60th day for the initial compliance demonstration to achieve the required CO percent reduction through the average reduction of emissions of CO determined from the initial performance test, according to 40 CFR Section 63.10(d)(2).	EU423
Notification of compliance status	due 60 days after Performance Test but before the close of business on the 60th day for the initial compliance demonstration to achieve the required CO percent reduction through the average reduction of emissions of CO determined from the initial performance test, according to 40 CFR Section 63.10(d)(2).	EU425, EU426, EU656
Notification of compliance status	due 60 days after Performance Test but before the close of business on the 60th day for the initial compliance demonstration to record the catalyst pressure drop and catalyst inlet temperature during the initial performance test, according to 40 CFR Section 63.10(d)(2).	EU424, EU425, EU426, EU656
Notification of compliance status	due 60 days after Performance Test but before the close of business on the 60th day for the initial compliance demonstration to record the catalyst pressure drop and catalyst inlet temperature during the initial performance test, according to 40 CFR Section 63.10(d)(2).	EU423
Notification of the Actual Date of Initial Startup	due 15 days after Permit Issuance	EU678, EU679, EU680, EU681
Notification of the Actual Date of Initial Startup	due 15 days after Startup	EU682, EU683, EU684, EU685, EU686, EU687, EU688, EU689
Notification	due 60 days before Performance Test as required in 40 CFR Section 63.7(b)(1). In addition, the Administrator shall be notified in writing of the date of the performance evaluation of the CMS.	EU423, EU424, EU425, EU426, EU656

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-3** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Submittal	due before 12/31/2013. The Permittee shall submit CO, CO2e, NOx, SO2, PM, PM10, PM2.5, VOC, and HAP emission factors for LPG engines less than or equal to 25 HP for approval from the MPCA to calculate emissions from LPG engines less than or equal to 25 HP.	GP001
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TABLE B: RECURRENT SUBMITTALS**B-4** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

What to send	When to send	Portion of Facility Affected
Compliance Status Report	due 31 days after end of each calendar half-year starting 05/03/2013.	EU423, EU424, EU425, EU426, EU656
Semiannual Compliance Report	due 31 days after end of each calendar half-year starting 02/01/2008. The report shall contain the information specified in Table A of this permit, under GP 002. The first semiannual compliance report must cover the first semiannual reporting period which begins 02/01/08 and ends on 06/01/08. Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. This report may be submitted with the Semiannual Deviations Report also listed in Table B of this permit.	GP002
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Annual Report	due 31 days after end of each calendar year following Permit Issuance. The Permittee shall submit an annual report by January 31st that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new or replaced units or control devices. The report shall document the CO ₂ e, CO, NO _x , and SO ₂ 12-month rolling sum calculations for the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review.	GP007
Annual Report	due 31 days after end of each calendar year following Permit Issuance. The Permittee shall submit an annual report by January 31st that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new or replaced units or control devices. The report shall document the PM, PM ₁₀ , and PM _{2.5} 12-month rolling sum calculations for the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review.	GP008

TABLE B: RECURRENT SUBMITTALS**B-5** 02/12/13

Facility Name: Cummins Power Generation

Permit Number: 00300019 - 003

Annual Report	due 31 days after end of each calendar year following Permit Issuance. The Permittee shall submit an annual report by January 31st that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new or replaced units or control devices. The report shall document the VOC 12-month rolling sum calculations for the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review.	GP009
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). Submit the certification on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This certification report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX B
Facility Name: Cummins Power Generation
Permit Number: 00300019-003

PART 63 SUBPART MMMM COMPLIANCE EQUATIONS

All equation numbers correspond to the equation numbers used in 40 CFR § 63.3951.

EQUATION 1

$$H_e = A + B + C - R_w$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to 40 CFR § 63.3951(e)(4). (The Permittee may assign a value of zero to R_w if the Permittee does not wish to use this allowance.)

EQUATION 1A

$$A = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i})$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i , used during the month, liters.

$D_{c,i}$ = Density of coating, i , kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i , kg organic HAP per kg coating. For reactive adhesives as defined in 40 CFR § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to 40 CFR pt. 63, subp. PPPP.

m = Number of different coatings used during the month.

APPENDIX B
Facility Name: Cummins Power Generation
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EQUATION 1B

$$B = \sum_{j=1}^n (Vol_{i,j})(D_{i,j})(W_{i,j})$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{i,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{i,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{i,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in 40 CFR § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to 40 CFR pt. 63, subp. PPPP.

n = Number of different thinners and/or other additives used during the month.

EQUATION 1C

$$C = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k})$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

APPENDIX B
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EQUATION 2

$$V_{st} = \sum_{i=1}^m (Vol_{c,i})(V_{s,i})$$

Where:

V_{st} = Total volume of coating solids used during the month, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to 40 CFR § 63.3941(b).

m = Number of coatings used during the month.

EQUATION 3

$$H_{yr} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n V_{st}}$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1.

V_{st} = Total volume of coating solids used during month, y, liters, as calculated by Equation 2.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

APPENDIX C
Facility Name: Cummins Power Generation
Permit Number: 00300019-003

PART 63 SUBPART ZZZZ COMPLIANCE EQUATIONS

All equation numbers correspond to the equation numbers used in 40 CFR Section 63.6620.

EQUATION 1

$$\frac{C_i - C_o}{C_i} \times 100 = R$$

Where:

C_i = Concentration of CO at the control device inlet.

C_o = Concentration of CO at the control device outlet.

R = percent reduction of CO emissions.

EQUATION 2

$$F_o = \frac{0.209 F_d}{F_c}$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

APPENDIX C
Facility Name: Cummins Power Generation
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EQUATION 3

$$X_{CO_2} = \frac{5.9}{F_o}$$

Where:

X_{CO₂} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

EQUATION 4

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2}$$

Where:

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

APPENDIX D
 Facility Name: Cummins Power Generation
 Permit Number: 00300019-003

Insignificant Activities Required To Be Listed

Minn. R. 7007.1300, subpart	Description of Activities
3(G)	Lab exhaust emissions (listed on Table 1.)
3(H)(3)	Brazing, soldering, or welding equipment
3(H)(4)	Blueprint copiers and photo processing
3(H)(7)	Cleaning operations: alkaline/phosphate cleaners, associated cleaners, and associated burners. CPG has aqueous cleaning lines to prepare parts for E-coat and Powder surface coating application Those operations include dry-off ovens to remove water from parts following final rinse or coating steps and some process tank heaters.
3(K)	Use of spray paint for plant upkeep activities.
4	<ul style="list-style-type: none"> • HVAC Burners and Building heating natural gas or propane combustion (listed on Table 2) • Storage tank emissions (listed on Table 3): • Anti-freeze storage tank (very little evaporative product loss expected) • Paint vault storage and mixing area (little evaporative product loss expected, VOC emissions calculated based on product use quantity for facility would include any loss from this area) • Garage areas where units are installed in trial vehicles with small fuel combustion in those areas. • Gasoline UST tanks (worst case annual evaporative loss of 85 pounds calculated in 1995) • Xylene UST tank (tank not in active use, 4.2 pound per year potential xylene loss calculated in 1995)

APPENDIX D
Facility Name: Cummins Power Generation
Permit Number: 00300019-003

Table 1 - LAB EXHAUST STACK SUMMARY

Exhaust Source ID:	Exhaust Source Location		Room or Column #	Application Description	Comments
	Building	Area			
Fume Hood, Exh 76	Tech Ctr.	Materials Lab	104	misc. lab applications	4'W; right hood, N wall
Fume Hood, [circuit #20]	Tech Ctr.	Materials Lab	104		8'W; center hood, N wall
Fume Hood, [circuit #24]	Tech Ctr.	Materials Lab	104		4'W; left hood, N wall
Overhead Fume Hood	Tech Ctr.	Materials Lab	104	muffle furnace, hot plate, dist.app.	right side, W wall
Stress Lab Oven Exh	Tech Ctr.	Stress Lab	105	Blue M Oven	3" duct
Paint Hood, Exh 78	Tech Ctr.	NDT Room	106	aerosol spray painting (non-prod)	dry filter (replaceable)
Emissions test lab exhaust	Tech Ctr.	Emissions test lab room		Analytical equipment for exhaust testing from Tech Center activities	
Oven Vent	Mfg Bldg	E-Coat Lab	27Z	Blue M Oven	Exh to plant, 4" duct
AA Analyzer	Mfg Bldg	E-Coat Lab	27Z	AA Analyzer exhaust	
Oven Vent EF 208	Mfg Bldg	Reliability Lab	51AA	small environmental parts chamber	
Flexible Vent	Mfg Bldg	Paint Vault	52W	vent for paint & varnish mixing	6" flex duct next to paint vats

Table 2 - STORAGE TANK INSIGNIFICANT ACTIVITIES SUMMARY

CPG Tank Identifier	Tank	Products Stored	Plant Site Area/Group
TA 21	Tank 21 10k Antifreeze	Antifreeze	Indoor 51x
TA-01	TC Tank 01 10k DF#2	Diesel fuel	Tech Center
TA-02	TC Tank 02 10k JP-8	Diesel fuel	Tech Center
TA-03	TC Tank 03 10k DF Prem	Diesel fuel	Tech Center
TA-04	TC Tank 04 10k Gasoline	Gasoline	Tech Center
TA-05	TC Tank 05 10k DF Prem	Diesel fuel	Tech Center
TA-22	Tank 22 20k Diesel Fuel	Diesel fuel	Main Plant SE
TA-9	Tank 09 10k Diesel Fuel	Diesel fuel	Main Plant SE
TA-10	Tank 10 2.5k Gasoline	Gasoline	Main Plant SE
TA-13	Tank 13 10k Summer Gasoline	Gasoline	Main Plant NE
TA-14	Tank 14 10k Diesel Fuel	Diesel fuel	Main Plant NE
TA-15	Tank 15 10k Summer Gasoline	Gasoline	Main Plant NE
TA-16	Tank 16 10k JP-8	JP-8	Main Plant NE
TA-17	Tank 17 10k Diesel Fuel	Diesel fuel	Main Plant NE
TC Standby	TC Gen Set 2k Diesel Fuel	Diesel fuel	Tech Center Gen Set #5
TA-20	Tank 20 10k Motor Oil	Motor Oil	Main Plant SE
JP8 AST	Tank 23 10k JP-8 AST	JP-8	HH Test

APPENDIX D
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Table 3- HVAC AND BUILDING HEATING COMBUSTION SOURCES SUMMARY

Source Name/ID	Column location	Direct or Indirect	BTU inputs (MM BTUs/hr)
HV001	11n	Indirect	0.625
HV002	11w	Indirect	0.625
HV003	19n	Indirect	0.625
HV004	u17	Indirect	0.625
HV005	u19	Indirect	0.625
HV006	25n	Indirect	0.625
HV007	11cc	Indirect	0.625
HV008	cc17	Indirect	0.625
HV009	cc18	Indirect	0.625
HV010	l31	Indirect	0.625
HV011	u34	Indirect	0.625
HV012	39n	Indirect	0.625
HV014	cc33	Indirect	0.625
HV018	47q	Indirect	0.625
HV019	11n	direct	4.43
HV020	12s	direct	4.43
HV021	cc12	direct	4.43
HV023	m27	direct	4.43
HV025	k33	direct	4.43
HV026	y18	direct	4.43
HV027	aa18	direct	4.43
HV028	31l	direct	4.43
HV029	u34	direct	4.43
HV030	y34	direct	4.43
HV031	z34	direct	4.43
HV032	cc34	direct	4.43
HV034	y35	direct	5.65
HV035	cc42	direct	5.65
HV040	29jj	Indirect	0.61
HV041	28jj	Indirect	0.61
HV048	47u	direct	5.2
HV049	47u	direct	5.2
HV050	41q	direct	5.2
HV062	5n	direct	0.975
HV063	6n	Indirect	0.275
HV075	5gg	direct	5.28
HV079	54v	direct	5.544
HV081	39w	direct	5.65
HV090	41cc	direct	5.65
ZO009	ETL boiler		1.5
ZO013	Pumphouse		0.26
ZO602	Tech center boiler		3.5

APPENDIX E
Facility Name: Cummins Power Generation
Permit Number: 00300019-003

Table 1 – Material Content Information Summary for VOC, PM, PM₁₀, PM_{2.5} from MSDS, EDS, CPDS, or Other Similar Documentation

Product #	Product Name	Product Density (lb/gal)	Solids Content by Weight	VOC Density* (lb/gal)
F93G104	CARC Green	11.05	70.32%	3.28
F93B102	CARC Black	10.11	66.27%	3.41
W43166A	Cloud White	12.64	74.76%	3.19
G13813	Buff A/D Primer	10.10	53.39%	4.71
PCT49109	Onan Green Polyester	11.70	100.00%	-
PCTZ79106	Grey	12.35	100.00%	-

*HAP density is assumed to be 100% of the VOC density.

APPENDIX F
Facility Name: Cummins Power Generation
Permit Number: 00300019-003

Table 1 – Modeled Source Parameters

Stack/ Vent ID	Source Description	UTM Location (NAD83)		Base Elevation		Stack Height		Exhaust Flowrate (acfm)	Exit Velocit y (m/s)	Exhaust Temperature		Stack Diameter	
		Easting (m)	Northing (m)	(ft)	(m)	(ft)	(m)			(°F)	(K)	(ft)	(m)
Facility Natural Gas and Propane Combustion ¹													
SV186	Boiler 1	481,419.3	4,993,980.3	896	273	40.0	12.2	2,785	4.50	350	449.67	2.0	0.61
SV187	Boiler 2	481,419.3	4,993,974.8	896	273	40.0	12.2	1,283	2.07	240	388.56	2.0	0.61
SV345	E-Coat Curing Oven	481,587.0	4,993,891.1	896	273	51.0	15.5	1,700	9.00	400	477.44	1.1	0.34
SV000	Make-up Air Units	481,589.0	4,993,925.2	896	273	40.8	12.4	NA	0.01	240	388.56	1.0	0.30
Process 7053 Production Test ^{2,3,4}													
Main Plant 51 X Big Test Cells													
SV195	Test Cell 6	481,748.0	4,993,885.8	896	273	42.1	12.8	5,250	53.06	870	738.56	0.8	0.24
SV154	Test Cell 7	481,748.0	4,993,874.2	896	273	42.1	12.8	5,250	53.06	870	738.56	0.8	0.24
SV167	Test Cell 8	481,748.0	4,993,870.5	896	273	42.1	12.8	5,250	53.06	870	738.56	0.8	0.24
SV179	Test Cell 9	481,748.9	4,993,862.0	896	273	42.1	12.8	5,250	53.06	870	738.56	0.8	0.24
Main Plant Production Test Room													
SV190	Test Cell 2	481,699.2	4,993,988.4	896	273	42.6	13.0	4,305	43.51	840	721.89	0.8	0.24
Other Production Line Test Cells													
SV062	J Line	481,706.5	4,993,973.8	896	273	35.8	10.9	1,000	6.47	113	318	0.5	0.30
Process 5074 ETL Test ⁵													
SV099	Cell 15	481,643.7	4,994,006.1	896	273	43.0	13.1	300	7.76	200	366.33	0.8	0.15
Technical Center Test ^{6,7}													
SV605	Development Cell 138	481,943.1	4,993,931.1	896	273	46.0	14.0	1,135	11.47	600	588.56	0.8	0.24
SV651	Endurance Cell 201	481,970.8	4,993,910.7	896	273	23.0	7.0	215	15.45	600	588.56	0.3	0.09
Generators ⁸													
SV424	Generator No. 2	481,401.1	4,993,952.8	896	273	30.0	9.1	8,800	56.92	885	746.89	1.0	0.3048

APPENDIX F
Facility Name: Cummins Power Generation
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¹ Both facility boilers and one of the three facility curing ovens will be modeled with actual stack parameters. SV 345, E-Coat Cure Oven, was selected from the three curing oven exhaust stacks since it is centrally located. The three curing ovens have similar exhaust parameters. Make-up air unit exhaust parameters are estimated based on expected values. The make-up air unit exhaust point was arbitrary placed in the center of the building. There are approximately 60 make-up air units located throughout the plant buildings.

² Process 7053, Production Test, 51X Big Test Cells have a high percent of the total facility emissions. Emissions from each test cells exhaust through two identical stacks. One stack associated with each test cell will be modeled with actual stack parameters for those four stacks.

³ Process 7053, Main Plant Production Test Room emissions will all be modeled from a single test cell, Test Cell 2, Test Cell 2 is centrally located among the Main Plant Production Test Room stacks and has the lowest stack height of the stacks (Cell 1 through 5). All other parameters are the same for Cells 1 through 5.

⁴ Process 7053, Other Production Line cell (Ford Line, J Line, and Test Tables Line 1) emissions will be modeled at one of the two J line stacks, SV 062. SV 062 has a lower velocity and temperature than the Ford Line stack and other J line stack and is centrally located. The Test Table Line1 test cell is used infrequently.

⁵ Process 5074, ETL cell emissions will be modeled at Cell 15, SV 099. SV 099 is centrally located, has one of the lowest velocities, and has one of the lower temperatures of the ETL stacks.

⁶ All Technical Center Development Cell emissions will be modeled at SV 605, Development Cell 138. SV 605 is centrally located and has one of the lowest velocities of the development cells. The exhaust temperatures and stack heights are the same for all of the development cells.

⁷ All Technical Center Endurance Cell emissions will be modeled at SV 651, Endurance Cell 201. All of the Endurance Cells have the same exhaust parameters. SV 651 is centrally located among the cells.

⁸ All Generator emissions will be modeled at Generator No. 2, SV 424. Generator 5 is not located near Generators 1 through 4, but is used infrequently. Generators 1 though 4 have the same exhaust parameters. Generator 2 is centrally located among Generators 1 through 4.