

AIR EMISSION PERMIT NO. 12300053-006
Total Facility Operating Permit - Reissuance

IS ISSUED TO

Metropolitan Council

Metropolitan Council Environmental Services
MCES - METROPOLITAN WASTEWATER TREATMENT PLANT
2400 Childs Road
St. Paul, Ramsey County, MN 55106

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. 12300053-006, and authorizes the Permittee to operate 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 SIP under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal; Pt 70/Major for NSR;

Operating Permit Issue Date: February 25, 2010

Expiration Date: February 25, 2015– All Title I Conditions do not expire.

* The Permittee may continue to operate this facility after the expiration date of the permit, per the provision under Minn. R. 7007.0450, subp. 3. (Title V Reissuance Application was received on 09/16/2005)

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

for Paul Eger
Commissioner
Minnesota Pollution Control Agency

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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:

The Metropolitan Council Environmental Services (MCES) -Metropolitan Wastewater Treatment Plant (WWTP) is an advanced secondary waste water treatment facility located at Mississippi River mile 836 in St. Paul, Ramsey County, Minnesota. This plant is the principal sewage treatment facility for the Minneapolis and St. Paul metropolitan area serving more than 80 percent of the area's sewer population, as well as commercial, institutional, and industrial wastewater generators. The facility has a permitted average wet weather design flow of 314 million gallons per day; discharge of treated waste water to the Mississippi River is authorized by NPDES/SDS permit number MN0029815. Primary and secondary sludges from the waste water treatment process, as well as sludges from other MCES treatment facilities, are blended and thickened prior to incineration on-site.

The primary source of emissions at this facility is the incineration of sewage sludge, along with small amounts of spent activated carbon and scum generated on-site in three fluidized bed reactors (FBR). Each identical FBR is equipped with a pollution control train consisting of carbon injection, a high temperature fabric filter baghouse, a venturi scrubber and a high efficiency wet electrostatic precipitator. The FBRs normally fire natural gas as an auxiliary fuel, but are capable of using No. 2 fuel oil. Emissions also result from aeration of the waste water during the treatment process, operation of auxiliary steam boilers for plant heating, operation of emergency generators, ash and materials handling, fuel storage activities, spray painting for maintenance activities, and other routine maintenance activities.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

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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
Unless otherwise specified in this permit, the following conditions apply to the total facility.	Minn. R. 7017.1004, subp. 1(A) regarding state testing and monitoring requirements; 40 CFR 60.11(f) as applicable
A. 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, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
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
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
Occurrence of the Exceedance: due 30 days after end of each year following Performance Test for HAP metals, volatile HAPs, and HCl, the Permittee shall implement the Tier 1, 2 or 3 procedures if the test results indicate HAP metals in excess of 0.065 lb/dry ton of sludge charged, volatile HAPs in excess of 0.034 lb/dry ton of sludge charged, or HCl in excess of 0.1 lb/dry ton of sludge charged. The Tier 1, 2, and 3 procedures are attached as Appendix B and are made part of this permit.	Title I Condition: Monitoring for limit to avoid classification as a major source under 40 CFR 63.2
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
A.01. SIP REQUIREMENTS	hdr
Activities Not Requiring A Modification To The SIP: The Permittee is authorized to make changes to the facility without obtaining a modification to the SIP as long as the change does not increase from any emission point, the PM10 emission rates (either lb/hr or gr/dscf) or overall PM10 emissions, or alter equipment or parameters described in Appendix D, which forms the basis of the PM10 modeling.	Title I Condition: State Implementation Plan for PM10

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

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Remodeling for Attainment Demonstration: Before making any physical changes, including construction or modification of structures that increase effective structural dimensions, or changes to the method of operation which may affect parameters listed in Appendix D, the Permittee shall demonstrate to the MPCA that the PM10 plume dispersion characteristics following the physical change or change in method of operation will be equivalent to or better than the PM10 dispersion characteristics modeled using the parameters in Appendix D. The information submitted must include stacks, locations and dimensions of nearby buildings, the velocity and temperature of the gasses emitted, and the PM10 emission rates. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot be readily made about the dispersion, the Permittee must remodel.	Title I Condition: State Implementation Plan for PM10
Activities Requiring A Modification To The SIP: Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to: 1. Any decrease in the design stack gas volumetric flow rate below that indicated in Appendix D; 2. Any decrease in the design stack gas exit temperature below that contained in Appendix D; 3. Any reduction in stack height below that indicated in Appendix D; 4. Any increase in stack exit diameter above that contained in Appendix D; and/or 5. Any changes in operations that increase potential PM10 emissions	Title I Condition: State Implementation Plan for PM10
General Operation and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process and control equipment described in Appendix D according to the parameters set forth in Appendix D.	Title I Condition: State Implementation Plan for PM10
B. PLANS	hdr
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 shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment 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 the records kept to demonstrate plan implementation. For each piece of equipment that is not yet operational at the time of permit issuance, draft O & M plans no later than 180 days following initial startup of that piece of equipment.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J) regarding quality assurance procedures
Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and recordkeeping specified in the control plan as submitted with the permit application. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Episode Emission Reduction Plan: Submit to the commissioner an episode emission reduction plan to be implemented at the facility or stationary source in the event of a declaration by the commissioner of an air pollution episode. The plan shall be submitted to the commissioner within 90 days of the designation of the area as having exceeded the alert levels in Minn. R. 7009.1060, Table 1, following all requirements found in Minn. R. 7009.1000 to 7009.1110.	Minn. R. 7009.1000 through 7009.1110
C. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
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) regarding times of operation; Title I Condition: State Implementation Plan for PM10
D. PERFORMANCE TESTING REQUIREMENTS	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

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Facility Name: Metropolitan Wastewater Treatment Plant

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<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 unless an alternate schedule is given in the applicable compliance document. The owner or operator of the emission facility may request in the test plan that the submittal deadline be extended by up to 15 days if the complexity of the test schedule or the laboratory analysis is such that submittal within 45 days is impractical. 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 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>
E. MONITORING REQUIREMENTS	hdr
E.01. General monitoring requirements	hdr
<p>Monitoring: Conduct all monitoring in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A or B.</p>	<p>Minn. R. ch. 7017</p>
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment which have manufacturer's calibration procedures and check the accuracy of meters and monitors which cannot be calibrated. If the accuracy of equipment that cannot be calibrated is outside of recommended manufacturers specifications, it must be replaced. Any requirements applying specifically to continuous emission monitors are listed separately in this permit.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, 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>
<p>Continuous Operation: CEMS and COMS and all other monitors required by this permit must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS or COMS or any other monitors required by this permit must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.</p> <p>Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.</p>	<p>40 CFR 60.13(e) as applicable; Minn. R. 7017.1090, subp. 1; Minn. R. 7007.0800, subp. 2</p>
E.02. CEMS requirements	hdr
<p>Notification of changes requiring recertification. The owner or operator shall notify the commissioner in writing prior to making any planned changes which may invalidate the certification status of a CEMS. If the change was unforeseen, the owner or operator shall notify the commissioner in writing within two working days after making the change.</p>	<p>Minn. R. 7017.1050, subp. 4 regarding CEMS</p>
<p>The owner or operator of a CEMS shall conduct a recertification test on a monitoring system within 90 days of completion of any change which invalidates the monitor's certification status.</p>	<p>40 CFR 60.13(c) as applicable; Minn. R. 7017.1050, subp. 5</p>
<p>CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.</p>	<p>Minn. R. 7017.1060, subp. 3 regarding CEMS Pretest Meeting date</p>
<p>CEMS Certification Test Plan: due 30 days before CEMS Certification Test.</p>	<p>Minn. R. 7017.1060, subp. 1 & 2; 40 CFR 60.7(a)(5) regarding CEMS, as applicable</p>
<p>CEMS Certification Test Report: due 45 days after CEMS Certification Test, consistent with the requirements of Minn. R. 7017.1080, subp. 4.</p>	<p>Minn. R. 7017.1080, subp. 1, 2, & 4; 40 CFR 60.13(c)(2) regarding CEMS, as applicable</p>
<p>CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test.</p>	<p>Minn. R. 7017.1080, subp. 3 regarding CEMS</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

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QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR 60, App. F, section 3
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F as applicable.	40 CFR 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEMS certification test. A CGA is not required during any calendar quarter in which a RATA was performed.	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5; Minn. R. 7017.1130; 40 CFR 60.7(f) regarding CEMS records, as applicable
E.03. COMS requirements	hdr
Notification of changes requiring recertification. The owner or operator shall notify the commissioner in writing prior to making any planned changes which may invalidate the certification status of a CEMS. If the change was unforeseen, the owner or operator shall notify the commissioner in writing within two working days after making the change.	Minn. R. 7017.1050, subp. 4 regarding COMS
The owner or operator of a COMS shall conduct a recertification test on a monitoring system within 90 days of completion of any change which invalidates the monitor's certification status.	Minn. R. 7017.1050, subp. 5; 40 CFR Section 60.8(a); 40 CFR Section 60.13(c)
COMS Certification Test Pretest Meeting: due 7 days before COMS Certification Test.	Minn. R. 7017.1060, subp. 3 regarding COMS Pretest Meeting date
COMS Certification Test Plan: due 30 days before COMS Certification Test.	Minn. R. 7017.1060, subp. 1 & 2; 40 CFR 60.7(a)(5) regarding COMS, as applicable
COMS Certification Test Report: due 45 days after COMS Certification Test, consistent with the requirements of Minn. R. 7017.1080, subp. 4.	Minn. R. 7017.1080, subp. 1, 2 & 4; 40 CFR 60.13(c)(2) regarding COMS, as applicable
COMS Certification Test Report - Microfiche Copy: due 105 days after COMS Certification Test.	Minn. R. 7017.1080, subp. 3 regarding COMS
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210
COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test. Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall correspond to approximately 11%, 20%, and 37% opacity.	Minn. R. 7017.1210, subp. 3
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5; 40 CFR 60.7(f) regarding COMS records, as applicable
F. RECORDKEEPING	hdr
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
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, electronic data and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
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.	Minn. R. 7007.1200, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: Metropolitan Wastewater Treatment Plant

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State Implementation Plan Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of the required monitoring, sample, measurement, or report that corresponds with a "Title I Condition: State Implementation Plan for PM10" requirement.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y
G. REPORTING	hdr
(see also Performance Testing Requirements and Monitoring Requirements)	hdr
Semiannual Deviations Report: due 30 days after end of each calendar half-year following Permit Issuance. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. The report shall also contain all instances of Trigger Level exceedances and corrective actions taken.	Minn. R. 7007.0800, subp. 6(A)
Submittal: due 30 days after end of each calendar half-year following Permit Issuance. The Deviations from Requirements Cited as "Title I Condition: State Implementation Plan for PM10" shall be reported with the Semiannual Deviations Report required by this permit. If there were no deviations from any requirements cited as "Title I Condition: State Implementation Plan for PM10", the Permittee shall indicate such in the Semiannual Deviations Report.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Operation changes. In any shutdown, breakdown, or deviation covered by Minn. R. 7019.1000, subpart 1, 2, or 3, the owner or operator 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
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. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
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. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification: due 1 days after Discovery of Deviation (Oral Notification of Deviations Endangering Human Health or the Environment): Within 24 hours of discovery, orally notify the Commissioner of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification: due 2 days after Discovery of Deviation (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: 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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-6** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Submit all information required to be submitted to EPA under 40 CFR 60.4(a) to the MPCA address shown in the introduction to Table B of this permit.	40 CFR 60.4 as applicable
H. CONSTRUCTION	hdr
The Permittee shall not construct or install any PM-10 emission units not included this permit without first obtaining a major permit amendment.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.1500, subp. 1(B)
I. MISCELLANEOUS	hdr
Application for Permit Reissuance: due 180 days before expiration of Existing Permit. Include any required pollution prevention plans.	Minn. R. 7007.0400, subp. 3
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
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).	Minn. R. 7007.1400, subp. 1(H)
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
J. DEFINITIONS	hdr
Initial Performance Test: A test required under 40 CFR 60.8.	40 CFR 60.8 regarding the definition.
NFE: "Not Federally Enforceable", meaning that this is a state-only requirement and is not enforceable by the EPA Administrator, nor subject to the citizen suit provisions of section 304 of the Clean Air Act, 42 U.S.C. section 7604.	Minn. R. 7007.1750 regarding the meaning of federal enforceability
PM-10: Particulate Matter < 10 micron, as defined in Minn. R. 7005.0100, subp. 30a	Minn. R. 7005.0100, subp. 30a
WESP: Wet Electrostatic Precipitator	Minn. R. 7007.0800, subp. 2
H2S: Hydrogen sulfide	Minn. R. 7007.0800, subp. 2
FBI: Fluidized Bed Reactor or Fluidized Bed Incinerator	Minn. R. 7007.0800, subp. 2
FBR: Fluidized Bed Reactor or Fluidized Bed Incinerator	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 003 Emergency Generators

Associated Items: EU 020 Emergency Generator 1
 EU 021 Emergency Generator 2
 EU 022 Emergency Generator 3
 EU 023 Emergency Generator 4
 EU 024 Emergency Generator 5
 EU 025 Emergency Generator 6
 EU 054 Temporary Emergency Generator 9
 EU 055 Temporary Emergency Generator 10

What to do	Why to do it
These requirements apply separately to each unit listed in GP 003 unless otherwise noted. The temporary emergency generators (EU 054 and/or EU 055) were manufactured after April 1, 2006, they are subject to 40 CFR pt. 60, subp. IIII. These additional requirements are listed in Appendix A of the permit.	hdr
A. EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input as measured by the sulfur content of the fuel not to exceed 0.5% by weight. Diesel fuel specifications meet the 0.5% sulfur content limit.	Minn. R. 7011.2300, subp. 2
B. OPERATIONAL REQUIREMENTS	hdr
Fuel Usage: Diesel only, by design.	Minn. R. 7005.0100, subp. 35a; Minn. R. 7007.0800, subp. 2
Operating Limitations: Emergency usage, maintenance, training, or testing purposes only.	Minn. R. 7007.0800, subp. 2
Hours of Operation: less than or equal to 500 hours per year based on a 12-month rolling sum. The U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995, limits operation to 500 hours per year.	Minn. R. 7007.0800, subp. 2
C. RECORDKEEPING	hdr
Hours of Operation: The Permittee shall maintain documentation on site that each unit in this group is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subps. 4 & 5
Recordkeeping: The Permittee shall record the date, length of time, type of fuel, and reason for each use for each unit listed in GP003.	Minn. R. 7007.0800, subps. 4 & 5
Obtain and retain fuel supplier certification to demonstrate compliance with sulfur content of fuel. Certification from the fuel supplier includes the name of the oil supplier and a statement from the oil supplier stating that the oil complied with the definition of distillate oil.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-8** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 004 Ash Handling Systems

Associated Items: CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 EU 019 Local Exhaust Control Ash Loadout
 EU 048 Ash Loadout Transporters
 EU 049 Coal Ash or FBR Ash Transporters
 EU 050 Quicklime Transporter
 SV 023 Local Exhaust Control Ash Loadout and Transporters BF08 Stack
 SV 033 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour
 SV 034 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour
 SV 035 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour
 SV 036 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour
 SV 037 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour
 SV 038 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

What to do	Why to do it
A. EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot . Applies to each stack/vent individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A); Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot . Applies to each stack/vent individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity using 6-minute Average . Applies to each stack/vent individually.	Minn. R. 7011.0715, subp. 1(B)
B. TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 09/27/2005 to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/27/2005 to measure PM-10 emissions.	Minn. R. 7017.2020, subp. 1
C. OTHER LIMITS AND REQUIREMENTS	hdr
Visible Emissions: The Permittee shall check the associated stack for any visible☐emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping of Corrective Actions: The Permittee shall record the corrective actions taken, as soon as possible as based on the operation and maintenance plan to eliminate any visible emissions.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 006 Fluidized Bed Reactors (EU035, EU036, EU037)**Associated Items:** CE 028 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 029 Venturi Scrubber 1

CE 030 Electrostatic Precipitator - High Efficiency

CE 031 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 032 Venturi Scrubber 2

CE 033 Electrostatic Precipitator - High Efficiency

CE 034 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 035 Venturi Scrubber 3

CE 036 Electrostatic Precipitator - High Efficiency

CE 048 Enhanced Hg Control Equip. 1

CE 049 Enhanced Hg Control Equip. 2

CE 050 Enhanced Hg Control Equip. 3

EU 035 Fluidized Bed Sewage Sludge Reactor 1

EU 036 Fluidized Bed Sewage Sludge Reactor 2

EU 037 Fluidized Bed Sewage Sludge Reactor 3

SV 039 Fluidized Bed Reactor #1 Stack

SV 040 Fluidized Bed Reactor #2 Stack

SV 041 Fluidized Bed Reactor #3 Stack

What to do	Why to do it
A. EMISSION LIMITS	hdr
CONTROL EQUIPMENT	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99.9 percent	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99.4 percent collection efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14; Title I Condition: State Implementation Plan for PM10
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Lead: greater than or equal to 96.5 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable 40 CFR 60 emission limit for particulate matter and opacity. (The term "startup" is defined in this permit. The terms "shutdown" and "malfunction" are defined in 40 CFR 60.2)	40 CFR 60.8(c) regarding excess emissions
A.01. Particulate Matter	hdr
A.01.a. NSPS and State Performance Standard Particulate testing	hdr
Front-half Particulate Matter: less than or equal to 1.30 lbs/ton dry sludge input. Limit applies to each unit EU035 to EU037 individually.	40 CFR 60.152(a)(1); Minn. R. 7011.1310, item A
A.01.b. Limit taken to avoid PSD	hdr
Front-half Particulate Matter: less than or equal to 2.57 lbs/hour . Limit applies to each unit EU035 to EU037 individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
A.02. PM-10	hdr
Particulate Matter < 10 micron: less than or equal to 2.01 lbs/hour . Limit applies to each unit EU035 to EU037 individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.0800, subp. 2
A.03. Lead	hdr
Lead: less than or equal to 0.0097 lbs/ton of dry sludge charged. Limit applies to each unit EU035 to EU037 individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
A.04. Opacity	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Opacity: less than 20 percent opacity using 6-minute Average. Limit applies to each unit EU035 to EU037 individually.	40 CFR 60.152(a)(2); Minn. R. 7011.1310, item B
A.05. Hydrochloric acid	hdr
Hydrochloric acid: less than or equal to 0.1 lbs/ton of dry sludge charged. Limit applies to each unit EU035 to EU037 individually. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - Hydrochloric acid: less than or equal to 5.76 tons/year as a 12-month rolling sum for all FBRs combined, based on dry tons of sludge incinerated and HCl emission factor from the most recent performance test results.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
A.06. Mercury	hdr
Mercury: less than or equal to 0.0036 lbs/ton of dry sludge charged. Acceptable methods of measuring mercury include performance testing at the stack or sludge analysis (12-month rolling average). Limit applies to each unit EU035 to EU037 individually. (NFE)	Minn. R. 7007.0800, subp. 2
Mercury: less than or equal to 3200 grams per 24-hour period for all incineration units combined.	40 CFR 61.52(b)
PERMANENT MERCURY LIMITS. In amending, modifying, or reissuing a facility's air emissions permit which contains a provision that restricts mercury emissions from the facility, the commissioner shall, at a minimum, continue that permit restriction at the same level unless the applicant demonstrates that no good cause exists to do so. (NFE)	Minn. Stat. 116.85, subd. 1a(e)
A.07. Volatile HAPs	hdr
HAPs - Volatile: less than or equal to 0.034 lbs/ton of dry sludge charged, measured by Method 18. Limit applies to each unit EU035 to EU037 individually. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - HAPs - Volatile: less than or equal to 1.98 tons/year as a 12-month rolling sum for all FBRs combined, based on dry tons of sludge incinerated and Volatile HAPs emission factor from the most recent performance test results.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
A.08. Metal HAPs	hdr
HAP-Metal: less than or equal to 0.065 lbs/ton of dry sludge charged. Limit applies to each unit EU035 to EU037 individually. This limit is for all metal HAPs combined, including Lead. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - HAP-Metal: less than or equal to 3.72 tons/year as a 12-month rolling sum for all FBRs combined, based on dry tons of sludge incinerated and the Metal HAPs emission factor from the most recent performance test results. This limit is for all metal HAPs combined, including Lead.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
B. OPERATIONAL REQUIREMENTS	hdr
At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with 40 CFR 60.11(d) and 40 CFR 61.12(c). Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the commissioner which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the source.	40 CFR 60.11(d); 40 CFR 61.12(c)
No changes shall be made in the operation which would potentially increase emissions above the level determined by the most recent performance test, except as allowed by the Total Facility portion of this permit following formal review of a subsequent performance test on the same unit.	40 CFR 61.53(d)(4) regarding operational restrictions
B.01. Operational limits	hdr
B.01.a. Combustion temperature	hdr
Temperature: greater than or equal to 1200 degrees F using 8-hour Block Average for a minimum retention time of 0.3 second measured in the outlet of the FBR, utilizing auxiliary fuel burners if needed to maintain temperature. Limit applies to each unit EU035 to EU037 individually.	Minn. R. 7011.1310 regarding temperature minimums
B.01.b. Sludge charging	hdr
Process Throughput: less than or equal to 38325 tons/year using 12-month Rolling Sum of dry sludge. Limit applies to each unit EU035 to EU037 individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21. Limit taken to avoid classification as a major source under 40 CFR 63.2
Process Throughput: less than or equal to 130 tons/day using 24-hour Block Average of dry sludge. Limit applies to each unit EU035 to EU037 individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-11 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Process Throughput: less than or equal to 315 tons/day using 24-hour Block Average of dry sludge. This limit applies to the combined throughputs of EU035 to EU037.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S
Process Throughput: less than or equal to the 1-hour dry sludge feedrate using 24-hour Block Average, set pursuant to Minn. R. 7017.2025, subp. 3 and subp. 3a, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Limit applies to each unit EU035 to EU037 individually.	Minn. R. 7017.2025, subp. 3; Minn. R. 7017.2025, subp. 3a
Process Throughput: less than or equal to the 1-hour wet sludge feedrate using 8-hour Block Average, set pursuant to Minn. R. 7017.2025, subp. 3 and subp. 3a, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Limit applies to each unit EU035 to EU037 individually.	Minn. R. 7017.2025, subp. 3; Minn. R. 7017.2025, subp. 3a
FBR Charging: MCES shall incinerate only conditioned sewage sludge, including spent activated carbon and scum.	Minn. R. 7007.0800, subp. 2
B.01.c. Auxiliary Fuel Usage	hdr
The Permittee shall burn only natural gas or distillate fuel oil as auxiliary fuel. No gaseous, liquid, semi-solid, or solid wastes shall be used as auxiliary fuel.	Minn. R. 7007.0800, subp. 2
B.02. Trigger level (Trigger levels, if exceeded, initiate a requirement for corrective action.)	hdr
B.02.a. Front-half Particulate Matter Trigger level	hdr
Front-half Particulate Matter trigger level: In its O&M Plan, the Permittee shall establish a trigger level for Front-half Particulate Matter emissions. The trigger level shall reflect the physical capabilities of the process and control equipment to limit emissions, and shall be used to indicate if the process and control equipment are operating properly. If a performance test demonstrates an exceedance of the trigger level, the Permittee shall report the exceedance in the Performance Test Report. (NFE)	Minn. R. 7007.0800, subp. 16(J)
B.02.b. Particulate Matter < 10 micron Trigger level	hdr
Particulate Matter < 10 micron trigger level: In its O&M Plan, the Permittee shall establish a trigger level for Particulate Matter < 10 micron emissions. The trigger level shall reflect the physical capabilities of the process and control equipment to limit emissions, and shall be used to indicate if the process and control equipment are operating properly. If a performance test demonstrates an exceedance of the trigger level, the Permittee shall report the exceedance in the Performance Test Report. (NFE)	Minn. R. 7007.0800, subp. 16(J)
B.02.c. Opacity trigger level	hdr
Opacity trigger level: 10 percent opacity, applied to each unit EU035 to EU037 individually. If the opacity trigger level exceedance is sustained for more than 30 consecutive minutes (except during periods of startup and shutdown) the permittee shall immediately initiate an investigation to determine and correct the cause of the elevated opacity. The Permittee shall log any investigation and corrective action. (NFE)	Minn. R. 7007.0800, subp. 16(J)
B.02.d. Mercury trigger level	hdr
If mercury emissions exceed 1,600 g per 24-hour period for all FBRs combined, demonstrated by sludge sampling according to 40 CFR 61.54, the Permittee shall monitor mercury emissions at intervals of at least once per year by use of Method 105 of appendix B for sludge sampling. The results of monitoring shall be reported and retained according to 40 CFR 61.54 (f) and (g) for sludge sampling. This permit condition is in addition to the other mercury performance testing required by this permit.	40 CFR 61.55(a)
B.03. Emissions exceedances documented in a test report.	hdr
If the FBRs tested emissions exceed the trigger level based on the results of the performance test, the Permittee shall do the following, unless the FBR owner or operator notifies the commissioner within 14 days after the FBR owner or operator receives the performance test report that the owner or operator can show reason for rejecting the data: (NFE)	Minn. Stat. 116.85, subd. 3
CONTINUED: As soon as reasonably possible following discovery (but no later than 24 hours), orally report the exceedance to either the assigned MPCA enforcement staff or permitting staff. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 3
CONTINUED: Immediately undertake appropriate repairs or modifications to return the FBR to compliance.	CONTINUED. Minn. Stat. 116.85, subd. 3; 40 CFR 60.11(d) regarding good operation; 40 CFR 61.12(c) regarding good operation

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-12

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

CONTINUED: Conduct another performance test or shut the FBR down. If the FBR cannot demonstrate compliance within 60 days of the report of initial exceedance, the FBR shall be shut down on the 61st day after the report of the exceedance. The performance test shall be conducted and the test report received within those 60 days. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 3
CONTINUED: If FBR shutdown was required due to noncompliance as noted above, the Permittee may restart the FBR for the purposes of compliance testing, provided that at least a 10-day notification has been provided to the MPCA. The Permittee is allowed to operate the non-compliant FBR until the completion of the test, after which the FBR must be shut down. The FBR may be restarted only after the Permittee receives notice from the MPCA that it has achieved compliance with the emissions standards or restarts for the purpose and duration of additional testing after further repair or operational changes. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 3
B.04. Operator Training	hdr
Operator Training: The Permittee shall maintain a training schedule to provide training to the FBR operators. (NFE)	Minn. R. 7007.0800, subp. 16(J)
Personnel who shall be trained. The training program shall train personnel who have responsibilities which affect air emissions from a FBR. (NFE)	Minn. R. 7007.0800, subp. 16(J)
Personnel must be trained prior to assuming new job-related activities affecting air emissions. (NFE)	Minn. R. 7007.0800, subp. 16(J)
Operator training shall address the following issues: A. a summary of the applicable state rules, federal regulations, and other requirements to the activities described in the facility's air emissions permit; B. a description of basic combustion theory applicable to the facility's FBRs; C. procedures for feeding sludge and other materials; D. FBR start-up, shutdown, and malfunction procedures; E. procedures for maintaining proper combustion air levels; F. procedures for operating the FBR within the emission limits established in the permit; G. procedures for responding to periodic upset or off-specification conditions; H. procedures for monitoring FBR emissions; I. procedures for reporting and recordkeeping; J. timetables and procedures for routine inspection and maintenance of equipment affecting air emissions; and K. procedures for activating communications and alarm systems (NFE)	Minn. R. 7007.0800, subp. 16(J)
The permittee shall update the operator training materials to reflect changes in operating procedures. The permittee shall make the updates at least once a year. (NFE)	Minn. R. 7007.0800, subp. 2
C. TESTING REQUIREMENTS	hdr
C.01. General performance testing	hdr
Provide: (1) Sampling ports adequate for test methods applicable to each source. (2) Safe sampling platform(s). (3) Safe access to sampling platform(s). (4) Utilities for sampling and testing equipment. (5) Any other facilities that the Administrator needs to safely and properly test a source.	40 CFR 60.8(e) as applicable; 40 CFR 61.13(d) as applicable
Dry sludge charging rate. With each performance test, determine the dry sludge charging rate in accordance with Minn. R. 7011.1325, subp. 3	Minn. R. 7011.1325, subp. 3
Wet sludge charging rate. With each performance test, determine the wet sludge charging rate in wet tons per hour. This requirement applies to each unit EU035 to EU037 individually.	Minn. R. 7017.2025, subp. 2
C.02. Particulate Matter, PM-10, and Opacity Performance Testing	hdr
Performance Test: due before end of each calendar year following Permit Issuance to measure PM emissions. This schedule applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed from once a year to once every three years according to the following equation and conditions: $X = T / A \times 100\%$ A = most stringent particulate matter emission limit in this permit T = particulate matter emission measured during test If X is less than or equal to 60% for two or more consecutive years, then the test frequency may be reduced to once every three years. If a subsequent performance test results in X greater than 60%, the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces two consecutive tests meeting the above criteria for a three-year test frequency. The Permittee shall conduct performance testing on at least one different FBR every calendar year.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Performance Test: due before end of each calendar year following Permit Issuance to measure PM10 emissions. This schedule applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed from once a year to once every three years according to the following equation and conditions: $X = T / A \times 100\%$ A = most stringent PM-10 emission limit in this permit T = PM-10 emission measured during test If X is less than or equal to 60% for two or more consecutive years, then the test frequency may be reduced to once every three years. If a subsequent performance test results in X greater than 60%, the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces two consecutive tests meeting the above criteria for a three-year test frequency. The Permittee shall conduct performance testing on at least one different FBR every calendar year.	Minn. R. 7017.2020, subp. 1
If after 30 days notice for an initially scheduled performance test for particulate or opacity, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, notify the commissioner as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the commissioner by mutual agreement.	40 CFR 60.8(d) regarding changes after the 30-day notice
Conduct PM-10 tests in accordance with Minn. R. 7017.2060, subp. 4.	Minn. R. 7017.2060, subp. 4
Conduct Particulate Matter and Opacity tests according to the requirements of this permit and Minn. R. 7017.2001 to 7017.2060.	Minn. R. 7011.1325, subp. 1
Test methods and procedures for particulate matter. Comply with the test methods and procedures found in Minn. R. 7011.1325.	40 CFR 60.154; Minn. R. 7011.1325
PERFORMANCE TEST METHODS Utilize the following methods: A. Method 1 for sample and velocity traverses; B. Method 2 for volumetric flow rate; C. Method 3 for gas analysis; and D. Method 5 for concentration of particulate matter and associated moisture content (without condensibles).	Minn. R. 7011.1320; 40 CFR 60.154(b)(2) regarding methods
Sampling time for Method 5. For Method 5, the sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.015 dscm/min (0.53 dscf/min), except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the agency.	Minn. R. 7011.1325, subp. 2; 40 CFR 60.154(b)(2) regarding sampling minimums
Each performance test for particulate matter shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the commissioner's approval, be determined using the arithmetic mean of the results of the two other runs.	40 CFR 60.8(f)
During each performance test for particulate matter and opacity, the sludge rate monitor, wet scrubber pressure drop, oxygen monitor, FBR temperature monitor, and auxiliary fuel flow monitor required by 40 CFR 60.153(a)(1) through (b)(4) must be operating, and the daily sludge sampling and analysis procedures required under 40 CFR 60.153(b)(5) must be performed.	40 CFR 60.154(d) regarding operating parameters
Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test for particulate matter and opacity.	40 CFR 60.8(c) regarding nonrepresentative testing conditions
C.03. Mercury testing	hdr
C.03.a. Mercury performance testing	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-14 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Performance Test: due before end of each calendar quarter following Permit Issuance to measure mercury emissions. This schedule applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed to once every three years according to the following equation and conditions: $X = T / A \times 100\%$ A = most stringent mercury emission limit in this permit T = mercury emission measured during test If X is less than or equal to 50% for three consecutive years, then the test frequency may be reduced to once every three years. If a subsequent performance test results in X is greater than 50%, the testing frequency shall increase to a yearly basis until subsequent yearly testing produces a test meeting the above criteria for a three-year test frequency. Notify the commissioner of all changes to the mercury testing schedule. The Permittee shall conduct performance testing on at least one different FBR every calendar year. (NFE)	Minn. Stat. 116.85, subd. 1a(b) regarding 3-month testing; Minn. Stat. 116.85, subd. 1a(c) regarding relaxed testing; Minn. Stat. 116.85, subd. 1a(d); Minn. R. 7017.2020, subp. 1
Measure mercury emissions using Method 101A in 40 CFR 61, Appendix B. (NFE)	Minn. R. 7007.0800, subp. 2
During mercury performance testing, the minimum sample volume shall be 1.7 dscm and the minimum sample run time shall be one hour. (NFE)	Minn. R. 7007.0800, subp. 2
Records of mercury emission test results and other data needed to determine total mercury emissions shall be retained at the source and shall be made available, for inspection by the commissioner for a minimum of 5 years.	40 CFR 61.53(d)(6); Minn. R. 7007.0800, subp. 5(C) regarding mercury records
For each run, the performance test report shall include pounds per hour mercury additive feedrate and the average temperature at the location where mercury additive is introduced in the flue gas stream. This requirement applies to each unit EU035 to EU037 individually. (NFE)	Minn. R. 7007.0800, subp. 2
C.03.b. Sludge testing for mercury	hdr
C.03.b.(1) Sludge testing requirements under 40 CFR 61, Subpart E	hdr
Comply with the following conditions:	40 CFR 61.53(d)(1)
CONTINUED. Use Method 105 of 40 CFR 61, Appendix B	CONTINUED. 40 CFR 61.54(a)
CONTINUED. Conduct a sludge test within 90 days of startup	CONTINUED. 40 CFR 61.54(a)(2)
CONTINUED. Mercury Sludge Sampling Test Notification (written): due 30 days before Sludge Sampling Test	CONTINUED. 40 CFR 61.54(b)
CONTINUED. Sample sludge in accordance with 40 CFR 61.54(c).	CONTINUED. 40 CFR 61.54(c)
CONTINUED. Measure mercury emissions in accordance with 40 CFR 61.54(d)	CONTINUED. 40 CFR 61.54(d)
CONTINUED. No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase mercury emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the commissioner.	CONTINUED. 40 CFR 61.54(e)
CONTINUED. All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected. Each determination shall be reported to the commissioner by a registered letter dispatched within 15 calendar days following the date such determination is completed.	CONTINUED. 40 CFR 61.54(f)
CONTINUED. Records of sludge sampling, charging rate determination and other data needed to determine mercury content of wastewater treatment plant sludges shall be retained at the source and made available, for inspection by the commissioner for a minimum of 5 years.	CONTINUED. 40 CFR 61.54(g); Minn. R. 7007.0800, subp. 5(C) regarding mercury records
CONTINUED. Report: due 30 days after end of each calendar half-year after Initial Startup of any FBI. (The report shall contain the results of monthly mercury sampling of the mixed sludge charged to the FBIs).	CONTINUED. Minn. R. 7007.0800, subp. 4
C.03.b.(2) State sludge sampling requirements	hdr
The permittee shall sample, handle, prepare and analyze the sludge cake for mercury content once per month in accordance with the procedures described in 40 CFR 61.54(c)(1), Method 105 in appendix B - Determination of Mercury in Wastewater Treatment Plant Sewage Sludges. (NFE)	Minn. R. 7007.0800, subp. 2
The permittee shall collect and analyze samples of the plant influent for a 14 day period within the first month of each calendar quarter to determine the mercury concentration and mass load. (NFE)	Minn. R. 7007.0800, subp. 2
C.03.b.(3) Alternative to mercury performance testing	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-15 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

The Permittee may, at its own discretion, pursue the following procedure as an alternative to performance testing to determine mercury in air emissions. This schedule applies to each unit EU035 to EU037 individually. (The Permittee must also continue to comply with the mercury measurement requirements of 40 CFR 61, Subpart E.) (NFE)	Minn. Stat. 116.85, subd. 1a(b) regarding testing alternatives
CONTINUED. Using performance test data and sampling data as needed, derive (if possible) a method to calculate mercury stack emissions by correlating mercury emission rates, mercury control additive feedrates, and sludge mercury concentrations. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 1a(b) regarding testing alternatives
CONTINUED. After twelve consecutive quarters of mercury performance testing have been completed, submit the mercury emission rate calculation method to the commissioner for approval. The mercury emission rate calculation must provide a reasonable estimate of mercury emissions to be acceptable. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 1a(b) regarding testing alternatives
CONTINUED. Upon approval by the commissioner, monthly sludge sampling and analysis combined with mercury control equipment operating parameters will be used to determine mercury emissions as an alternative to mercury performance testing. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 1a(b) regarding testing alternatives
CONTINUED. Report: due 30 days after end of each calendar half-year following Initial Startup (The report shall contain the monthly mercury sample analysis of the mixed sludge charged to the FBIs, the quarterly plant influent sample analysis, and the estimated mercury emissions to the air.). (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 1a(b) regarding testing alternatives
C.04. Other performance testing	hdr
Performance Test: due before end of each calendar year following Permit Issuance for Metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium). The tests shall be conducted at an interval not to exceed 18 months between test dates. This timetable applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed from once a year to once every five years according to the following equation and conditions:	Minn. R. 7017.2020, subp. 1
CONTINUED $X = T / A \times 100\%$ A = most stringent HAP-Metal emission limit in this permit T = HAP-Metal emission measured during test If X is less than or equal to 60% for two or more consecutive years, then the test frequency may be reduced to once every five years. If a subsequent performance test results in X greater than 60%, the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces two consecutive tests meeting the above criteria for a five-year test frequency. The Permittee shall conduct performance testing on at least one different reactor every two years. This permit condition does not supercede any other mercury testing requirements in this permit.	CONTINUED Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each calendar year following Permit Issuance for Volatile HAPs, measured by Method 18. The tests shall be conducted at an interval not to exceed 18 months between test dates. This timetable applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed from once a year to once every five years according to the following equation and conditions:	Minn. R. 7017.2020, subp. 1
CONTINUED $X = T / A \times 100\%$ A = most stringent Volatile HAPs emission limit in this permit T = Volatile HAPs emission measured during test If X is less than or equal to 60% for two or more consecutive years, then the test frequency may be reduced to once every five years. If a subsequent performance test results in X greater than 60%, the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces two consecutive tests meeting the above criteria for a five-year test frequency. The Permittee shall conduct performance testing on at least one different FBR every two years.	CONTINUED Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each calendar year following Permit Issuance for Hydrogen Chloride (HCl). The tests shall be conducted at an interval not to exceed 18 months between test dates. This timetable applies to each unit EU035 to EU037 individually. Testing frequency may be relaxed from once a year to once every five years according to the following equation and conditions:	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-16** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

<p>CONTINUED</p> <p>$X = T / A \times 100\%$</p> <p>A = most stringent Hydrogen Chloride emission limit in this permit</p> <p>T = Hydrogen Chloride emission measured during test</p> <p>If X is less than or equal to 60% for two or more consecutive years, then the test frequency may be reduced to once every five years. If a subsequent performance test results in X greater than 60%, the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces two consecutive tests meeting the above criteria for a five-year test frequency.</p> <p>The Permittee shall conduct performance testing on at least one different FBR every two years.</p>	CONTINUED Minn. R. 7017.2020, subp. 1
D. MONITORING REQUIREMENTS	hdr
(see also Testing Requirements)	hdr
D.01. Requirement to operate	hdr
Monitoring Data: Reduce all oxygen, sludge charging rate, wet scrubber pressure drop, auxiliary fuel flow, FBR outlet temperature, and FBR bed temperature monitor data to 1-hour averages, in accordance with 40 CFR 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	40 CFR 60.13(h) regarding continuous monitoring systems other than COMS
D.01.a. Sludge charging rate monitor - operate	hdr
Calibrate, maintain, and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the FBR. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(a)(1) for the need to have a monitor; Minn. R. 7011.1315, item A
D.01.b. Wet Scrubber Pressure Drop monitor - operate	hdr
Calibrate, maintain and operate a monitoring device that continuously measures and records the pressure drop of the gas flow through the Wet Scrubber. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within ± 250 pascals (± 1 inch water gauge). This requirement applies to each unit EU035 to EU037 individually.	40 CFR 64; 40 CFR 60.153(b)(1) for the need to have a monitor
D.01.c. Oxygen CEMS - operate	hdr
Calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the FBR exhaust gas of each FBR. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the FBR exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of ± 5 percent over its operating range. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(b)(2) regarding the need to have a monitor
CEMS Monitor Design: Each oxygen CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	40 CFR 60.13(e)(2)
D.01.d. Temperature monitor - operate	hdr
Calibrate, maintain and operate temperature measuring devices in the bed of the FBR. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(b)(3) regarding the need to have a bed monitor
Calibrate, maintain and operate temperature measuring devices in the outlet of the FBR. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(b)(3) regarding the need to have an outlet monitor
D.01.e. Fuel flow monitor - operate	hdr
Calibrate, maintain, and operate a device for measuring the auxiliary fuel flow to each FBR. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(b)(4) regarding the need to have a monitor
D.01.f. Opacity monitor - operate	hdr
Emissions Monitoring: The owner or operator shall use a COMS to measure opacity emissions. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 64; Minn. R. 7017.1006
COMS Monitoring Data: COMS shall reduce all data to 6 minute averages, calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6 minute averaging period.	40 CFR 64; 40 CFR 60.13(e)(1); 40 CFR 60.13(h) regarding opacity averages; Minn. R. 7017.1004, subp. 1(A)
D.01.g. Carbon monoxide monitor - operate	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-17** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

CEMS operation: Operate a carbon monoxide CEMS to measure emissions from each FBR as an indicator of good combustion and destruction of volatile HAPs. This requirement applies to each unit EU035 to EU037 individually. (NFE)	Minn. Stat. 116.85, subd. 1 regarding the need to have a monitor; Minn. R. 7017.1006
Monitoring Data: Reduce all carbon monoxide monitor data to 1-hour averages. 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	Minn. Stat. 116.85, subd. 1 regarding continuous measurements; Minn. R. 7017.1160
D.02. Monitor Certification	hdr
CEM Recertification Test: due within 90 days of any completion of any change which invalidates the monitor's certification status as defined by Minn. R. 7017.1050, subp. 2. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B.	40 CFR 60.13(c) regarding CEMS; 40 CFR 60.13(f) regarding CEMS; Minn. R. 7017.1050, subp. 5 regarding CEMS
COM Recertification Test: due within 90 days of any completion of any change which invalidates the monitor's certification status as defined by Minn. R. 7017.1050, subp. 2. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B.	40 CFR 64; 40 CFR 60.13(c) regarding COMS; 40 CFR 60.13(f) regarding COMS; Minn. R. 7017.1050, subp. 5 regarding COMS
D.03. QA/QC	hdr
D.03.a. Wet Scrubber Pressure Drop monitor - QA/QC	hdr
Calibrate the Wet Scrubber Pressure Drop monitor on an annual basis in accordance with the manufacturer's instructions.	40 CFR 64; 40 CFR 60.153(b)(1) for annual calibration
D.03.b. CEMS QA/QC	hdr
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR 60.153(b)(2) regarding daily calibration; 40 CFR pt. 60, Appendix F, section 4.1; 40 CFR 60.13(d)(1) regarding CEMS; Minn. R. 7017.1170, subp. 3
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR 60.13(a) regarding CEMS
D.03.c. Opacity monitor - QA/QC	hdr
COMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR 60, Appendix B and shall operate, calibrate, and maintain each COMS according to the QA/QC procedures in Minn. R. 7017.1210	40 CFR 64; 40 CFR 60.13(a) regarding COMS; Minn. R. 7017.1210
Clean the optical surfaces exposed to the effluent gases prior to performing the zero and span drift adjustments, except that for systems using automatic zero adjustments the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.	40 CFR 64; 40 CFR 60.13(d)(1) regarding COMS
COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. A span value of 60, 70, or 80 percent opacity must be used unless an alternative span value is approved by the commissioner. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.	40 CFR 64; Minn. R. 7017.1210, subp. 2; 40 CFR 60.13(d)
D.04. Continuous monitor operation	hdr
Continuous Operation: The carbon monoxide CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	Minn. Stat. 116.85, subd. 1 regarding continuous operation; Minn. R. 7017.1090, subp. 1 regarding the CO CEMS
Continuous Operation: All oxygen, opacity, sludge charging rate, wet scrubber pressure drop, auxiliary fuel flow, FBR outlet temperature, and FBR bed temperature monitors shall be in continuous operation during all periods of emission unit operation. This includes periods of emission unit start-up, shutdown, or malfunction. Exceptions include continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and other periods allowed by this permit. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	40 CFR 60.13(e); 40 CFR 60.153(a)(1) for sludge monitor continuous operation; 40 CFR 60.153(b)(3) regarding continuous outlet temperature monitoring; 40 CFR 60.153(d) regarding exemptions for sludge feedrate and outlet temperature
D.04.a. Continuous FBR bed temperature monitor operation	hdr
Except as allowed by this permit, the temperature monitoring devices at the FBR bed shall be operated continuously and data recorded during all periods of operation of the FBR.	40 CFR 60.153(b)(3) regarding continuous monitoring of the bed

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-18** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

If the particulate matter emission rate measured during the most recent performance test is less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton), the Permittee shall not be required to comply with monitoring temperature at the FBR bed, nor its associated recordkeeping. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(d)(2); 40 CFR 60.153(d)(3) regarding incinerator bed temperature records; Minn. R. 7007.0800, subp. 2
D.04.b. Continuous fuel flow monitor operation	hdr
The auxiliary fuel flow measuring device shall be operated continuously and data recorded during all periods of operation of each FBR.	40 CFR 60.153(b)(4) regarding continuous fuel flow monitoring; Minn. R. 7007.0800, subp. 2
D.05. Sewage sludge testing	hdr
D.05.a. Access to sludge	hdr
Provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.	40 CFR 60.153(a)(2); Minn. R. 7011.1315, item B
D.05.b. Sludge sampling	hdr
Sludge Sampling: Except as allowed by this permit, collect and analyze a grab sample of the sludge fed to each FBR once per day. The dry sludge content and the volatile solids content of the sample shall be determined in accordance with Part 2540 G., "Standard Methods for the Examination of Water and Wastewater", 20th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005.	40 CFR 60.153(b)(5)
If the particulate matter emission rate measured during the most recent performance test is less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton), the Permittee shall not be required to comply with daily sampling and analysis of sludge, nor its associated recordkeeping. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.153(d)(2); 40 CFR 60.153(d)(3) regarding sludge analysis records; Minn. R. 7007.0800, subp. 2
E. RECORDKEEPING	hdr
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR 60.7(b); Minn. R. 7019.0100, subp. 1
Recordkeeping: The Permittee shall record the average sludge feed rate during all periods of FBR operation for each FBR, in wet tons per hour.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp. Y; Minn. R. 7007.0800 subp. 4(B) and 5(C)
Recordkeeping: The owner or operator must retain records of all carbon monoxide CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. (NFE)	Minn. Stat. 116.85, subd. 1 regarding recordkeeping
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records required under 40 CFR 60.7(f) for at least five years.	40 CFR 60.7(f); Minn. R. 7007.0800, subp. 5(C) for the 5-year requirement
Retain at the source and make available, upon request, for inspection by the commissioner for a minimum of five years, records of emission test results and other data required by 40 CFR 61.13(g) needed to determine mercury emissions.	40 CFR 61.13(g); Minn. R. 7007.0800, subp. 5(C) for the 5-year requirement
Except as allowed by this permit, retain the following information and make it available for inspection by the Administrator for a minimum of five years: (1) a record of the measured pressure drop of the gas flow through each Wet Scrubber (2) A record of the measured oxygen content of each FBR exhaust gas (3) A record of the rate of sludge charged to each FBR, the measured temperatures of each FBR, the auxiliary fuel flow to each FBR, and the total solids and volatile solids content of the sludge charged to the FBR	40 CFR 60.153(c); Minn. R. 7007.0800, subp. 5(C) for the 5-year requirement
Maintain a record of the identity of all personnel who have received training and the number of training hours. The records shall be provided to the commissioner on demand. (NFE)	Minn. R. 7007.0800, subp. 2
F. REPORTING	hdr
(see also Operational Requirements, Performance Testing Requirements, and Monitoring Requirements)	hdr
F.01. Semiannual Deviations report	hdr
In addition to the requirement found elsewhere in this permit, include the following in the Semiannual Deviations Report:	40 CFR 60.155(a)
CONTINUED. A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than, by a percentage specified below, the average scrubber pressure drop measured during the most recent performance test. The percent reduction in scrubber pressure drop for which a report is required shall be determined as follows:	CONTINUED 40 CFR 60.155(a)(1); 40 CFR 64

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-19 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

CONTINUED (i) For each FBR that achieved an average particulate matter emission rate of 0.38 kg/Mg (0.75 lb/ton) dry sludge input or less during the most recent performance test, a scrubber pressure drop reduction of more than 30 percent from the average scrubber pressure drop recorded during the most recent performance test shall be reported.	CONTINUED 40 CFR 60.155(a)(1)(i); 40 CFR 64
CONTINUED (ii) For each FBR that achieved an average particulate matter emission rate of greater than 0.38 kg/Mg (0.75 lb/ton) dry sludge input during the most recent performance test, a percent reduction in pressure drop greater than that calculated according to the following equation shall be reported: $P = -111E + 72.15$ where P=Percent reduction in pressure drop, and E=Average particulate matter emissions (kg/megagram)	CONTINUED 40 CFR 60.155(a)(1)(ii); 40 CFR 64
CONTINUED. A record of average oxygen content in each FBR exhaust gas for each period of 1-hour duration or more that the oxygen content of the FBR exhaust gas exceeds the average oxygen content measured during the most recent performance test by more than 3 percent.	40 CFR 60.155(a)(2)
If the average particulate matter emission rate measured during the Initial Performance Test of an FBR exceeds 0.38 g/kg of dry sludge input (0.75 lb/ton of dry sludge input), include in the Semiannual Deviation Report for each calendar day that a decrease in scrubber pressure drop or increase in oxygen content of exhaust gas is reported a record of the following:	40 CFR 60.155(b) ; 40 CFR 64
CONTINUED. Scrubber pressure drop averaged over each 1-hour FBR operating period.	CONTINUED. 40 CFR 60.155(b)(1); 40 CFR 64
CONTINUED. Oxygen content in the FBR exhaust averaged over each 1-hour FBR operating period.	CONTINUED. 40 CFR 60.155(b)(2)
CONTINUED. Temperatures of the bed and outlet of FBRs averaged over each 1-hour FBR operating period.	CONTINUED. 40 CFR 60.155(b)(3)
CONTINUED. Rate of sludge charged to the FBR averaged over each 1-hour FBR operating period.	CONTINUED. 40 CFR 60.155(b)(4)
CONTINUED. FBR auxiliary fuel use averaged over each 8-hour FBR operating period.	CONTINUED. 40 CFR 60.155(b)(5)
CONTINUED. Moisture and volatile solids content of the daily grab sample of sludge charged to the FBR.	CONTINUED. 40 CFR 60.155(b)(6)
G. DEFINITIONS	hdr
FBR: Fluidized bed reactor = Fluidized bed incinerator	Minn. R. 7007.0800, subp. 2
MERCURY ADDITIVE: The material added to the flue gas stream for the purposes of controlling mercury emissions, such as activated carbon.	Minn. R. 7007.0800, subp. 2
STARTUP (or start-up): the setting in operation of an affected facility for any purpose. For the Fluidized Bed Reactors startup occurs when sludge charging is resumed after a period of at least three hours when no sludge had been charged.	Minn. R. 7007.0800, subp. 2; 40 CFR 60.2 regarding "startup" definition
CONTINUOUS EMISSION MONITORING SYSTEM or CEMS includes Oxygen monitoring systems, Carbon Monoxide monitoring systems, and any other systems subject to the definition in Minn. R. 7017.1002, subp. 4.	Minn. R. 7017.1002, subp. 4
CONTINUOUS MONITORING SYSTEM: The total equipment, required under the emission monitoring sections in 40 CFR 60, Subpart O, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters. This includes monitors for oxygen, opacity, sludge charging rate, wet scrubber pressure drop, fuel flow, fluidized bed reactor outlet temperature, and fluidized bed reactor bed temperature.	40 CFR 60.2 regarding continuous monitoring system
MONITORING DEVICE: The total equipment, required under the monitoring of operations sections in 40 CFR 60, Subpart O, used to measure and record (if applicable) process parameters.	40 CFR 60.2 regarding monitoring device

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-20

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 007 Auxiliary Boilers**Associated Items:** EU 042 Auxiliary Boiler 3

EU 043 Auxiliary Boiler 4

SV 046 Auxiliary Boiler No. 3

SV 047 Auxiliary Boiler No. 4

What to do	Why to do it
A. EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 15.37 lbs/million pounds of steam. This requirement applies to each unit individually. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - Particulate Matter < 10 micron: less than or equal to 25.82 lbs/calendar day applies to each unit individually AND less than or equal to 3.37 tons/year using 12-month Rolling Sum of both units combined. This limit shall be calculated as follows.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp.Y
CONTINUED Daily emissions (lbs/day) = (Eng * SPng) + (Efo * SPfo) Where: Eng = particulate matter < 10 micron emission rate of natural gas from the most recent performance test (lbs PM10/lb steam) SPng = actual daily steam production while burning natural gas (lbs steam/calendar day) Efo = particulate matter < 10 micron emission rate of fuel oil from the most recent performance test (lbs PM10/lb steam) SPfo = actual daily steam production while burning fuel oil (lbs steam/calendar day) This requirement applies to each unit individually.	CONTINUED Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp.Y
CONTINUED 12-month emissions (tons/year) = 12-month sum[((E1ng * M1SPng) + (E1fo * MSP1fo) + (E2ng * M2SPng) + (E2fo * MSP2fo))/2000] Where: E(i)ng = particulate matter < 10 micron emission rate of natural gas from the most recent performance test (lbs PM10/lb steam) MSP(i)ng = actual steam production for the given month while burning natural gas (lbs steam/month) E(i)fo = particulate matter < 10 micron emission rate of fuel oil from the most recent performance test (lbs PM10/lb steam) MSP(i)fo = actual steam production for the given month while burning fuel oil (lbs steam/month) 2000 = conversion factor (lbs/ton) This requirement applies to both emission units combined.	CONTINUED Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp.Y
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 requirement applies to each unit individually.	40 CFR 60.43c(c)
The opacity standards apply at all times, except during periods of startup, shutdown, or malfunction.	40 CFR 60.43c(d); 40 CFR 60.8(c) regarding excess emissions; 40 CFR 60.11(c)
B. OPERATIONAL REQUIREMENTS	hdr
Fuel Use: Only natural gas and distillate fuel oil shall be burned as fuel.	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; 40 CFR 60.42c(e)
Distillate fuel oil may be burned only as a backup fuel when natural gas is unavailable. Economics cannot be an argument for the facility to choose to burn distillate fuel oil in lieu of natural gas. (NFE)	Minn. R. 7007.0800, subp. 2

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Sulfur Content of Fuel: less than or equal to 0.5 percent as certified by the vendor.	40 CFR 60.42c(d)
Production: less than or equal to the steam production rate in lbs/hr using 8-hour block average, set pursuant to Minn. R. 7017.2025, subp. 3 and subp. 3a, based on the values recorded during the most recent MPCA approved performance test while burning distillate fuel oil. Limit applies to each unit individually. Limit applies only while burning distillate fuel oil.	Minn. R. 7017.2025, subp. 3; Minn. R. 7017.2025, subp. 3a
Production: less than or equal to the steam production rate in lbs/hr using 8-hour block average, set pursuant to Minn. R. 7017.2025, subp. 3 and subp. 3a, based on the values recorded during the most recent MPCA approved performance test while burning natural gas. Limit applies to each unit individually. Limit applies only while burning natural gas.	Minn. R. 7017.2025, subp. 3; Minn. R. 7017.2025, subp. 3a
<p>Fuel Usage: less than or equal to 2484507 gallons/year using 12-month Rolling Sum of distillate fuel oil for both units combined, provided that all distillate fuel oil shipments contain not more than 0.05 percent sulfur by weight as certified by vendor, or</p> <p>If any distillate fuel oil shipment contain greater than 0.05 weight percent sulfur, then the volume of distillate fuel oil burned in EU042 and EU043 expressed as a 12-month rolling sum, shall not exceed the volume determined by the following equation:</p> <p>Distillate fuel oil limit (gallons) = 12-month sum $[(8.82 * 2000) / (0.142 * \%S)]$</p> <p>where: 8.82 = total limited boiler EU042 and EU043 annual SO₂ emissions (tons) 2000 = conversion factor (lbs/ton) 0.142 = emission factor from AP-42, Section 1.3, "Fuel Oil Combustion" (lb/gal) %S = monthly percent sulfur by weight</p>	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21
Production: less than or equal to 438E6 lbs/year using 12-month Rolling Sum of total steam produced from both units combined.	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21
At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with 40 CFR 60.11(d).	40 CFR 60.11(d)
C. MONITORING REQUIREMENTS	hdr
SO ₂ Monitoring: Obtain fuel supplier certification to demonstrate compliance with SO ₂ limit in lieu of performance testing. Certification from the fuel supplier includes the name of the oil supplier and a statement from the oil supplier stating that the oil complies with the definition of distillate oil.	40 CFR 60.44c(h); 40 CFR 60.48c(f)
D. RECORDKEEPING	hdr
Steam production monitoring: Record the amount of steam produced by EU042 and EU043 during each calendar month.	Minn. R. 7007.0800, subp. 4
Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of fuel combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings.	40 CFR Section 60.48c(g); Minn. R. 7011.0570
Recordkeeping: Record monthly the 12-month Rolling Sum of total operating hours from both units combined.	Minn. R. 7007.0800, subp. 4
Recordkeeping: If the PM-10 pounds-per-day emission limit is implemented, record daily the total PM-10 emitted for that day from both boilers combined.	Minn. R. 7007.0800, subp. 4
Recordkeeping: Maintain all records for at least five years	40 CFR 60.48c(l); Minn. R. 7007.0800, subp. 5
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR 60.7(b)
E. REPORTING	hdr
E.2. Periodic reports	hdr

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Reporting: Submit reports on sulfur limits as part of the Semiannual Deviations Report. The reports must include: (a) calendar dates covered in the reporting period; (b) records of fuel supplier certification and a certified statement that the records represent all fuel combusted (Fuel supplier certification must include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil); (c) 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken (d) Each 30-day average percent of potential SO ₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.	40 CFR 60.48c(d); 40 CFR 60.48c(e) regarding all applicable reporting requirements; 40 CFR 60.48c(f)
Reporting: Report reasons for instances of distillate fuel oil use, along with a justification of its use in lieu of natural gas. Include this information as part of the Semiannual Deviations Report. (NFE)	Minn. R. 7007.0800, subp. 2
E.4. Other Notifications	hdr
Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. (The commissioner may request additional relevant information subsequent to this notice.	40 CFR 60.7(a)(4)
F. OTHER LIMITS AND REQUIREMENTS	hdr
Visible Emissions: The Permittee shall check the associated stack for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping of Corrective Actions: The Permittee shall record the corrective actions taken, as soon as possible as based on the operation and maintenance plan to eliminate any visible emissions.	Minn. R. 7007.0800, subps. 4 and 5

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 008 Alkaline Stabilization Cell Ventilation

Associated Items: EU 038 Alkaline Stabilization Cell
 EU 039 Alkaline Stabilization Cell
 EU 040 Alkaline Stabilization Cell
 EU 041 Alkaline Stabilization Loading Area
 SV 042 Alkaline Stabilization Cells
 SV 043 Alkaline Stabilization Cells
 SV 044 Alkaline Stabilization Cells
 SV 045 Alkaline Stabilization Loading

What to do	Why to do it
A. EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot . Applies to each stack/vent individually. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - Total Particulate Matter: less than or equal to 2.3 tons as a 12-month Rolling Sum. This requirement applies to each stack/vent individually, and shall be calculated as follows.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A); Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
CONTINUED 12-month emissions (tons/year) = 12-month sum[(E * C* FO)/2000] Where: E = total particulate matter exhaust concentration from the most recent performance test of the ID fan stack/vent (lbs PM/dscf) C = ID fan capacity (dscf/hour) FO = total operating hours of the ID fan for the given month (hours) 2000 = conversion factor (lbs/ton)	CONTINUED Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A); Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot . Applies to each stack/vent individually. OR THE PERMITTEE MAY CHOOSE THE ALTERNATIVE BELOW Alternative Limit - Particulate Matter < 10 micron: less than or equal to 2.30 tons as a 12-month Rolling Sum AND less than or equal to 25.2 lbs/calendar day. This requirement applies to each stack/vent individually, and shall be calculated as follows.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.0800, subp. 2
CONTINUED 12-month emissions = 12-month sum[(E * C* FO)/2000] Where: E = particulate matter < 10 micron exhaust concentration from the most recent performance test of the ID fan stack/vent (lbs PM10/dscf) C = ID fan capacity (dscf/hour) FO = total operating hours of the ID fan for the given month (hours) 2000 = conversion factor (lbs/ton)	CONTINUED Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.0800, subp. 2
CONTINUED Daily emissions (lbs/day) = E * C * FO Where: E = particulate matter < 10 micron exhaust concentration from the most recent performance test of the ID fan stack/vent (lbs PM10/dscf) C = ID fan capacity (dscf/hour) FO = total operating hours of the ID fan for the calendar day (hours/day)	CONTINUED Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y; Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity using 6-minute Average . Applies to each stack/vent individually.	Minn. R. 7011.0715, subp. 1(B); Minn. R. 7017.2060, subp. 5(D)
Hydrogen Sulfide: less than or equal to 0.18 lbs/hour from all stack/vents combined	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

B. OPERATIONAL REQUIREMENTS	hdr
Operating Hours: less than or equal to 17520 hours/year using 12-month Rolling Sum for the ID fans associated with SV042, SV043, SV044, SV045.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S;
CONTINUED ("Why to do it" continued from above)	CONTINUED Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2
C. TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 09/27/2005 to measure Total Particulate Matter emissions.	Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/27/2005 to measure PM-10 emissions.	Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 09/27/2005 to measure hydrogen sulfide emissions.	Minn. R. 7017.2020, subp. 1
D. RECORDKEEPING	hdr
Recordkeeping: If the 12-month Rolling Sum Total Particulate Matter limit is implemented, calculate and record monthly the Total Particulate Matter 12-month Rolling Sum for each stack/vent.	Minn. R. 7007.0800, subp. 4
Recordkeeping: If the 12-month Rolling Sum PM-10 limit is implemented, calculate and record monthly the PM-10 12-month Rolling Sum for each stack/vent.	Minn. R. 7007.0800, subp. 4
Recordkeeping: Record the total operating hours of the individual ID fans for each day of operation.	Minn. R. 7007.0800, subp. 4
E. OTHER LIMITS AND REQUIREMENTS	hdr
Visible Emissions: The Permittee shall check the associated stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the control equipment, once each day of operation.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping of Corrective Actions: The Permittee shall record the corrective actions taken, as soon as possible as based on the operation and maintenance plan to eliminate any visible emissions.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-25 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 009 FBR Fabric Filter Baghouse**Associated Items:** CE 028 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 031 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 034 Fabric Filter - High Temperature, i.e., T>250 Degrees F

What to do	Why to do it
The requirements of GP009 apply separately to each item listed under GP009.	Minn. R. 7007.0800, subp.2
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 10.0 inches of water column using 1-Hour Average, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Minn. R. 7007.0800, subp. 4 and 5;
CONTINUED ("Why to do it" continued from above)	CONTINUED to avoid classification as a major source under 40 CFR 63.2; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding Baghouse O&M
Alternative Pressure Drop Range: If the Permittee wishes to propose an alternative pressure drop range to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative range. Upon written approval by MPCA, the alternative range shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14; 40 CFR 64
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	40 CFR 64; Minn. R. 7007.0800, subp. 4, 5, and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O&M) Plan. The permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff.	40 CFR 64; Minn. R. 7007.0800, subp. 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR 64; Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding Baghouse O&M
The requirement to operate the control equipment within the prescribed ranges may be waived temporarily for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling mercury emissions upon written approval from the commissioner. A plan must be submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project; (2) the outcome the project is designed to evaluate; and (3) the length of time the project will take to complete, not to exceed 14 days. The emission limits associated with the process equipment remain intact, and any emissions data indicative of an emission limit exceedance may be used as credible evidence.	40 CFR 64; Minn. Stat. 116.07, subd. 4a
B. MONITORING REQUIREMENTS	hdr

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

B.1. Requirement to have a monitor	hdr
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding Baghouse monitoring; Minn. R. 7007.0800, subp. 5 regarding Baghouse recordkeeping
The pressure drop monitor shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding Baghouse monitoring
B.2. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour averages. 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Record all 1-hour averages.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding Baghouse monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
C. RECORDKEEPING	hdr
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: Monitoring for Limit taken to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4, 5 and 16(J); 40 CFR 64

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-27 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 010 FBR Venturi Scrubbers**Associated Items:** CE 029 Venturi Scrubber 1

CE 032 Venturi Scrubber 2

CE 035 Venturi Scrubber 3

What to do	Why to do it
(See also the Fluidized Bed Reactor portion of this permit for additional control equipment requirements.)	hdr
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Pressure Drop: greater than or equal to 10.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S;
("Why to do it" continued from above)	CONTINUED Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M
Alternative Wet Scrubber Operational Limits: If the Permittee wishes to propose an alternative Wet Scrubber Operational Limit to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative limits. Upon written approval by MPCA, the alternative limit shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the Wet Scrubber at all times that any process equipment controlled by the Wet Scrubber is operating.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the Wet Scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the Wet Scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each Wet Scrubber.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M
The requirement to operate the control equipment within the prescribed ranges may be waived temporarily for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling mercury emissions upon written approval from the commissioner. A plan must submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project; (2) the outcome the project is designed to evaluate; and (3) the length of time the project will take to complete, not to exceed 14 days. The emission limits associated with the process equipment remain intact, and any emissions data indicative of an emission limit exceedance may be used as credible evidence.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Monitoring Equipment: The Permittee shall operate and maintain the necessary monitoring equipment for measuring and recording pressure drop upstream and downstream of the Wet Scrubber's venturi throat. The monitoring equipment must be installed, in use, and properly maintained when the monitored Wet Scrubber is in operation.	40 CFR 64; Minn. R. 7007.0800, subp. 4(D) regarding Venturi monitoring
B.2. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour Block Averages. 1-hour averages shall be computed from all data points collected at one-minute intervals over each 1-hour period. Record all 1-hour Block Averages.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding Venturi monitoring; Minn. R. 7007.0800, subp. 5 regarding Venturi recordkeeping
B.3. QA/QC	hdr

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Once a month, compare the the pressure monitor with a U-tube manometer. Record the results.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-29**

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 011 FBR Wet Electrostatic Precipitators**Associated Items:** CE 030 Electrostatic Precipitator - High Efficiency

CE 033 Electrostatic Precipitator - High Efficiency

CE 036 Electrostatic Precipitator - High Efficiency

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
WESP Secondary Voltage: greater than or equal to 10.0 kilovolts, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S;
CONTINUED ("Why to do it" continued from above)	CONTINUED Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M
WESP Inlet Temperature Trigger Level: less than 500 degrees F, measured to two significant digits. If a trigger level is exceeded, the permittee shall immediately initiate an investigation to determine and correct the cause of the abnormal conditions.	Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M
WESP Outlet Temperature Trigger Level: less than 300 degrees F, measured to two significant digits. If a trigger level is exceeded, the permittee shall immediately initiate an investigation to determine and correct the cause of the abnormal conditions.	Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M
Alternative WESP Secondary Voltage Limit: If the Permittee wishes to propose an alternative WESP Secondary Voltage Limit to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative limit. Upon written approval by MPCA, the alternative limit shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
Alternative WESP Trigger Level: If the Permittee wishes to propose an alternative WESP Trigger Level to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative level. Upon written approval by MPCA, the alternative level shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the WESP at all times that any process equipment controlled by the WESP is operating.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - an operating parameters is outside the required operating range; or - the WESP or any of its components are found during the inspections to need repair. Corrective actions shall return the operating parameter to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the WESP. The Permittee shall keep a record of the type and date of any corrective action taken for each WESP.	40 CFR 64; Minn. R. 7007.0800, subp. 14
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as presented in Minn. R. 7011.0075, subp. 2(A) to 2(I).	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

The requirement to operate the control equipment within the prescribed ranges may be waived temporarily for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling mercury emissions upon written approval from the commissioner. A plan must be submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project; (2) the outcome the project is designed to evaluate; and (3) the length of time the project will take to complete, not to exceed 14 days. The emission limits associated with the process equipment remain intact, and any emissions data indicative of an emission limit exceedance may be used as credible evidence.	40 CFR 64; Minn. Stat. 116.07, subd. 4a
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Calibrate, maintain, and operate a measuring device to monitor primary and secondary voltage for each transformer/rectifier of each WESP. The minimum accuracy of the monitor is plus-or-minus 0.5 kV. The measuring device shall be operated continuously.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Calibrate, maintain, and operate a measuring device to monitor primary and secondary current for each transformer/rectifier of each WESP. The measuring device shall be operated continuously.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Calibrate, maintain, and operate a measuring device to monitor sparking rate of each WESP. The measuring device shall be operated continuously.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Calibrate, maintain, and operate a measuring device to monitor the number of fields in operation for each WESP. The monitoring device shall be operated continuously.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Calibrate, maintain, and operate a measuring device to monitor the inlet temperature of each WESP. The minimum accuracy of the monitor is plus-or-minus 4 degrees F or 1.4 percent of the measured temperature, whichever is greater. The measuring device shall be operated continuously.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Calibrate, maintain, and operate a measuring device to monitor the outlet temperature of each WESP. The minimum accuracy of the monitor is plus-or-minus 4 degrees F or 1.4 percent of the measured temperature, whichever is greater. The measuring device shall be operated continuously.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
B.2. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour Block Averages. 1-hour averages shall be computed from all data points collected at one-minute intervals over each 1-hour period. Record all 1-hour Block Averages.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
B.3. QA/QC	hdr
Monitoring Equipment Calibration: Annually calibrate all temperature monitors required by this subject item by comparing them against an instrument of known accuracy. The acceptance criteria is plus-or-minus 4 degrees F.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding thermocouple maintenance
Voltmeter zero check: Perform a zero check on the secondary voltage monitor at least once every 30 days, not less than 21 days between each check. Record the results.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding voltmeter maintenance

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-31 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 013 Alkaline Stabilization and Ash Baghouses**Associated Items:** CE 037 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 038 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 039 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 040 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 10.0 inches of water column while any process equipment controlled by the fabric filter is operating, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Applies to each control device individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S;
CONTINUED ("Why to do it" continued from above)	CONTINUED Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding baghouse O&M
Alternative Pressure Drop Range: If the Permittee wishes to propose an alternative pressure drop range to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative range. Upon written approval by MPCA, the alternative range shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the fabric filter at all times that any process equipment controlled by the fabric filter is operating. Applies to each control device individually.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding fabric filter O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	40 CFR 64; Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O&M) Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff.	40 CFR 64; Minn. R. 7007.0800, subp. 14
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as presented in Minn. R. 7011.0075, subp. 2(A) to 2(I).	40 CFR 64; Minn. R. 7007.0800, subp. 16(J) regarding fabric filter O&M
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. Applies to each control device individually.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding fabric filter inspections; Minn. R. 7007.0800, subp. 5 regarding records of inspections.
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. Applies to each control device individually.	40 CFR 64; Minn. R. 7007.0800, subp. 4(D) regarding fabric filter monitoring
The pressure drop monitor shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period while the process equipment controlled by the fabric filter is operating.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring
B.2. Monitor operation	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-32**

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

All monitors required by this subject item shall be installed and operational prior to initial startup of the emission unit.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring
B.3. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour averages. 1-hour averages shall be computed from four or more data points, one from each 15-minute period. Record all 1-hour averages.	40 CFR 64; Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring; Minn. R. 7007.0800, subp. 5 regarding fabric filter recordkeeping
C. RECORDKEEPING	hdr
Recordkeeping of Pressure Drop. While any process equipment controlled by the fabric filter is operating, 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.	40 CFR 64; Minn. R. 7007.0800, subp. 16(J)

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-33

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 014 Three-stage Odor Scrubbers**Associated Items:** CE 041 Chemical Neutralization

CE 042 Chemical Neutralization

CE 043 Chemical Neutralization

CE 044 Chemical Neutralization

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Maintain liquid flow in the recirculation loop. Applies to each control device individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
pH: greater than or equal to 2.0 and less than or equal to 7.0 in any one of the three stages of the Three-Stage Odor Scrubber concurrently with greater than or equal to 8.0 and less than or equal to 12.5 in the other two stages, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Applies to each control device individually.	Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
Alternative Three-stage Odor Scrubber Operational Limits: If the Permittee wishes to propose an alternative Scrubber Operational Limit to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative limits. Upon written approval by MPCA, the alternative limit shall become an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the Three-stage Odor Scrubber at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating.	Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pH is outside the required operating range; or - water flow in the recirculation loop is not occurring; or - the Three-stage Odor Scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the operating parameters to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the Three-stage Odor Scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each Three-stage Odor Scrubber.	Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as presented in Minn. R. 7011.0075, subp. 2(A) to 2(I).	Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
The Permittee shall install and operate a flow switch to indicate liquid flow within the recirculation loops. The monitoring equipment must be installed, in use, and properly maintained at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating. Applies to each control device individually.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring
The Permittee shall install, calibrate, maintain, and operate a monitor the necessary monitoring equipment for measuring and recording Stage 1 pH. The measuring device shall be operated continuously at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating. Applies to each control device individually.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring
The Permittee shall install, calibrate, maintain, and operate the necessary monitoring equipment for measuring and recording Stage 2 pH. The measuring device shall be operated continuously at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating. Applies to each control device individually.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34**

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

The Permittee shall install, calibrate, maintain, and operate a monitor the necessary monitoring equipment for measuring and recording Stage 3 pH. The measuring device shall be operated continuously at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating. Applies to each control device individually.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring
The Permittee shall install, maintain, and operate an alarm indication loss of liquid flow in the recirculation loop. The alarm shall be operated continuously at all times that any process equipment controlled by the Three-stage Odor Scrubber is operating. Applies to each control device individually.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item shall be operational when operating the Three-stage Odor Scrubber.	Minn. R. 7007.0800, subp. 4(D) regarding Three-stage Odor Scrubber monitoring
B.3. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item (except for the flow switch), reduce all data to 1-hour averages. 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Record all 1-hour averages.	Minn. R. 7007.0800, subp. 4 regarding Three-stage Odor Scrubber monitoring; Minn. R. 7007.0800, subp. 5 regarding Three-stage Odor Scrubber recordkeeping
B.4. QA/QC	hdr
During planned outages, confirm and record that the flow switch delivers a no-flow signal when flow is not occurring in the recirculation loop. Applies to each control device individually.	Minn. R. 7007.0800, subp. 16(J) regarding flow switch maintenance

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-35**

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 015 Feed Tanks, Vents, and Cake Bins for Centrifuges**Associated Items:** EU 051 Centrifuge Feed Tanks

EU 052 Centrifuge Vents

EU 053 Cake Bins

What to do	Why to do it
When the process equipment controlled by the Fluidized Bed Reactor is operating, the Permittee shall record all times when the process equipment emissions are not vented through an operating Fluidized Bed Reactor and the 3-stage odor scrubber is not operating (bypass). The Permittee shall record the date of the bypass, the length of time of the bypass, and the reason for the bypass. The Permittee shall report the above information in the Semiannual Deviations Report.	Minn. Stat. 116.07, subd. 4a

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: GP 016 FBR Enhanced Hg Control Equipment

Associated Items: CE 048 Enhanced Hg Control Equip. 1
 CE 049 Enhanced Hg Control Equip. 2
 CE 050 Enhanced Hg Control Equip. 3
 EU 035 Fluidized Bed Sewage Sludge Reactor 1
 EU 036 Fluidized Bed Sewage Sludge Reactor 2
 EU 037 Fluidized Bed Sewage Sludge Reactor 3

What to do	Why to do it
MERCURY CONTROL EQUIPMENT FOR EACH FLUIDIZED BED REACTOR (Requirements apply to each individual unit)	hdr
A. INSTALL AND OPERATE	hdr
The Permittee shall operate and maintain the mercury control equipment at all times when sludge is being burned. The operation of this piece of control equipment is not necessary in order for the process to meet applicable emissions limits. (NFE)	Minn. Stat. 116.07, subd. 4a
The requirement to operate the mercury control equipment may be waived temporarily for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling mercury emissions upon written approval from the commissioner. A plan must submitted to the commissioner 30 days prior to undertaking any of the activities identified in this item, with the following information: (1) a description of the proposed project; (2) the outcome the project is designed to evaluate; and (3) the length of time the project will take to complete, not to exceed 14 days. (NFE)	Minn. Stat. 116.07, subd. 4a
Maintain and operate at all times a system for monitoring and recording the mercury additive's mass feed rate. (NFE)	Minn. Stat. 116.07, subd. 4a
Maintain, calibrate and operate a temperature measuring and recording devices at the location where mercury additive is introduced in the flue gas stream. (NFE)	Minn. Stat. 116.07, subd. 4a
B. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall describe the proper operation and maintenance of the mercury control equipment in the Operation and Maintenance Plan. (NFE)	Minn. R. 7007.0800, subp. 14 regarding mercury control
Low mercury additive feedrate: Immediately upon discovery of loss of mercury additive flow, initiate measures to restore mercury additive flow as soon as possible. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding inadequate mercury additive feedrate
C. RECORDKEEPING	hdr
Record the time periods, reasons, and corrective actions regarding the loss of mercury additive flow. (NFE)	Minn. Stat. 116.07, subd. 4a
D. REPORTING	hdr
Report as a Breakdown any incident of more than one hour duration of mercury control equipment breakdown while sludge is being burned. Comply with the requirements in Minn. R. 7019.1000. (NFE)	Minn. R. 7019.1000, subp. 2 regarding mercury additive feedrate reporting
E. DEFINITIONS	hdr
MERCURY ADDITIVE: The material added to the flue gas stream for the purposes of controlling mercury emissions, such as activated carbon.	Minn. Stat. 116.07, subd. 4a
8-HOUR BLOCK AVERAGE: The average of all one-hour averages when the emissions unit is operating and combusting sludge measured over three discrete eight-hour periods beginning at midnight (i.e., Midnight to 0800, 0800 to 1600, and 1600 to midnight).	Minn. Stat. 116.07, subd. 4a

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: EU 034 Ash Loadout Housekeeping Vacuum**Associated Items:** CE 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 033 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

SV 034 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

SV 035 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

SV 036 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

SV 037 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

SV 038 Ash Loadout Housekeeping Vacuum and/or Local Exhaust Control Ash Loadout BF01 Stack - Not a NOx Sour

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1A
Particulate Matter < 10 micron: less than or equal to 0.05 grains/dry standard cubic foot	Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp.Y
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1B
Recordkeeping: the Permittee shall maintain a record of shutdown or breakdown including hours of and reason for the the shutdown or breakdown	Minn. R. 7007.0800, subp. 5(C)
Read and record the pressure drop on the baghouse daily when the process equipment controlled by the fabric filter is operating.	Recordkeeping for limit to avoid classification as a major source under 40 CFR 63.2

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

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: EU 044 Emergency Generator 8**Associated Items:** SV 048 Emergency Generator No. 8 - Not included in worksheet, in emergency service only

What to do	Why to do it
A. EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . The potential to emit from the unit is 0.007 lb/MMBtu due to equipment design and allowable fuels (according to DELTA).	Minn. R. 7011.2300, subp. 2
Sulfur Content of Fuel: less than or equal to 0.05 percent by weight as certified by vendor.	Title I Condition: To avoid classification as a major modification under 40 CFR 52.21
B. OPERATIONAL REQUIREMENTS	hdr
Fuel Usage: Diesel only, by design.	Minn. R. 7005.0100, subp. 35a; Minn. R. 7007.0800, subp. 2
Operating Limitations: Emergency usage, maintenance, training, or testing purposes only.	Minn. R. 7007.0800, subp. 2
Hours of Operation: less than or equal to 500 hours per year based on a 12-month rolling sum.	Minn. R. 7007.0800, subp. 2
The U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995, limits operation to 500 hours per year.	
C. RECORDKEEPING	hdr
Recordkeeping - Hours of Operation: The Permittee shall maintain documentation of hours of operation for each unit listed in GP 003.	Minn. R. 7007.0800, subps. 4 & 5
Recordkeeping: The Permittee shall record the date, length of time, type of fuel, and reason for each use for this unit.	Minn. R. 7007.0800, subps. 4 & 5
Obtain and retain fuel supplier certification to demonstrate compliance with sulfur content of fuel. Certification from the fuel supplier includes the name of the oil supplier and a statement from the oil supplier stating that the oil complied with the definition of distillate oil.	Title I Condition: To avoid classification as a major modification under 40 CFR 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-39 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: CE 051 Biofilter**Associated Items:** EU 002 Bar Screens-East

EU 004 Grit Chambers-East

FS 002 Primary Settling Tanks - East

What to do	Why to do it
BIOFILTER	hdr
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Pressure Drop: greater than or equal to 4.0 inches of water column and less than or equal to 18.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Measure the pressure in the odorous air plenum downstream of the odorous air fans but prior to the point where the duct exits the building. Applies to each control device individually. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
Alternative Biofilter Operational Limits: If the Permittee wishes to propose alternative Biofilter Operational Limits to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative limits. Upon written approval by MPCA, the alternative limit shall become an enforceable part of this permit. (NFE)	Minn. R. 7007.0800, subp. 2
Control efficiency: greater than or equal to 90 percent control of H2S. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
A.2. Operating procedures	hdr
The Permittee shall operate and maintain the Biofilter at all times that any process equipment controlled by the Biofilter is operating. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the Biofilter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the Biofilter. The Permittee shall keep a record of the type and date of any corrective action taken for each Biofilter. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as presented in Minn. R. 7011.0075, subp. 2(A) to 2(I). (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Monitoring Equipment: The Permittee shall calibrate, maintain, and operate the necessary monitoring equipment for measuring and recording pressure drop across the biofilter. The monitoring equipment must be installed, in use, and properly maintained at all times that any process equipment controlled by the Biofilter is operating. Applies to each control device individually. (NFE)	Minn. R. 7007.0800, subp. 4(D) regarding Biofilter monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item shall be operational when operating the Biofilter. (NFE)	Minn. R. 7007.0800, subp. 4(D) regarding Biofilter monitoring
B.3. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour averages. 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Record all 1-hour averages. (NFE)	Minn. R. 7007.0800, subp. 4 regarding Biofilter monitoring; Minn. R. 7007.0800, subp. 5 regarding Biofilter recordkeeping

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

Subject Item: CE 052 Biofilter 2**Associated Items:** FS 002 Primary Settling Tanks - East

What to do	Why to do it
BIOFILTER	hdr
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
Pressure Drop: greater than or equal to 4.0 inches of water column and less than or equal to 18.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Measure the pressure in the odorous air plenum downstream of the odorous air fans. Applies to each control device individually. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
Alternative Biofilter Operational Limits: If the Permittee wishes to propose alternative Biofilter Operational Limits to the one specified in this permit without conducting a performance test, the Permittee shall submit the proposal to MPCA for review. The proposal shall contain control equipment vendor data, actual operating data, or other information as necessary, in order to justify an alternative limits. Upon written approval by MPCA, the alternative limit shall become an enforceable part of this permit. (NFE)	Minn. R. 7007.0800, subp. 2
Control efficiency: greater than or equal to 90 percent control of H ₂ S. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
A.2. Operating procedures	hdr
The Biofilter shall be installed and operating no later than 11/01/2002. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter startup
The Permittee shall operate and maintain the Biofilter at all times that any process equipment controlled by the Biofilter is operating. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the Biofilter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the Biofilter. The Permittee shall keep a record of the type and date of any corrective action taken for each Biofilter. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as presented in Minn. R. 7011.0075, subp. 2(A) to 2(I). (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Monitoring Equipment: The Permittee shall calibrate, maintain, and operate the necessary monitoring equipment for measuring and recording pressure drop across the biofilter. The monitoring equipment must be installed, in use, and properly maintained at all times that any process equipment controlled by the Biofilter is operating. Applies to each control device individually. (NFE)	Minn. R. 7007.0800, subp. 4(D) regarding Biofilter monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item shall be installed and operational prior to initial startup of the Biofilter. (NFE)	Minn. R. 7007.0800, subp. 4(D) regarding Biofilter monitoring
B.3. Data reduction	hdr
Monitoring Data: For all monitors required by this subject item, reduce all data to 1-hour averages. 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Record all 1-hour averages. (NFE)	Minn. R. 7007.0800, subp. 4 regarding Biofilter monitoring; Minn. R. 7007.0800, subp. 5 regarding Biofilter recordkeeping

TABLE B: SUBMITTALS

B-1 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant
Permit Number: 12300053 - 006

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor 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:

Mr. George Czerniak
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

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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.

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: RECURRENT SUBMITTALS**B-2** 03/09/10

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 006

What to send	When to send	Portion of Facility Affected
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a COMS error audit was performed.	MR001, MR004, MR007
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a CGA was performed.	MR002, MR003, MR005, MR006, MR008, MR009
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following CEM Certification Test or COMS Certification Test, whichever occurs first. (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	Total Facility
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a RATA was performed.	MR002, MR003, MR005, MR006, MR008, MR009
Report	due 30 days after end of each calendar quarter following Permit Issuance all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	GP016
Report	due 30 days after end of each calendar half-year starting 11/15/2002 of any FBI. (The report shall contain the monthly mercury sample analysis of the mixed sludge charged to the FBIs, the quarterly plant influent sample analysis, and the estimated mercury emissions to the air.). (NFE)	GP006
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX A

40 CFR 60, subp. IIII Requirements

Facility Name: Metropolitan Wastewater Treatment Plant
Permit Number: 12300053

The following tables list the requirements for emergency generator engines subject to subp. IIII.

Table 1 – Applies to pre-2007 model year generator engines manufactured after April 1, 2006

Emission Limits	
Exhaust Opacity: Less than or equal to: 1. 20 percent during the acceleration mode 2. 15 percent during the lugging mode; and 3. 50 percent during the peaks in either the acceleration or lugging modes.	40 CFR 60.4202(a)(2); 40 CFR 89.113 (a)
Carbon Monoxide: Exhaust emissions of carbon monoxide shall not exceed 11.4 grams per kilowatt-hour.	40 CFR 60.4205(a)
Hydrocarbons: Exhaust emissions of hydrocarbons shall not exceed 1.3 grams per kilowatt-hour.	40 CFR 60.4205(a)
Nitrogen Oxides: Exhaust emissions of nitrogen oxides shall not exceed 9.2 grams per kilowatt-hour.	40 CFR 60.4205(a)
Particulate Matter: Exhaust emissions of particulate matter shall not exceed 0.54 grams per kilowatt-hour	40 CFR 60.4205(a)
Operating Conditions	
Fuel Type: Diesel fuel must meet the requirements of 40 CFR 80.510(a), which requires that diesel fuel have a maximum sulfur content of 500 parts per million and either a minimum cetaine index of 40 or a maximum aromatic content of 35 volume percent. This rule is applicable beginning October 1, 2007. The Permittee may petition the Administrator for approval to use existing non-compliant diesel fuel inventories for up to six months or until exhausted, whichever comes first. If additional time is needed, the Permittee must submit a new application to the Administrator. This rule is applicable if the generator was manufactured before 2011.	40 CFR 60.4207(a); 40 CFR 60.4207(c); 40 CFR 80.510(a)
Fuel Type: Diesel fuel must meet the requirements of 40 CFR 80.510(b), which requires that diesel fuel have a maximum sulfur content of 15 parts per million and either a minimum cetaine index of 40 or a maximum aromatic content of 35 volume percent. This rule is applicable beginning October 1, 2010. The Permittee may petition the Administrator for approval to use existing non-compliant diesel fuel inventories for up to six months or until exhausted, whichever comes first. If additional time is needed, the Permittee must submit a new application to the Administrator. This rule is applicable if the generator was manufactured before 2011.	40 CFR 60.4207(b); 40 CFR 60.4207(c); 40 CFR 80.510(b)
Emission Standards: The Permittee shall operate and maintain the unit in accordance with the standards as required by 40 CFR 60.4205, according to the manufacturer's written instructions, or according to procedures developed by the owner or operator that are approved by the engine manufacturer, for the entire life of the engine. Settings for the unit may not be changed unless permitted by the manufacturer.	40 CFR 60.4206; 40 CFR 60.4211(a)

Table 1 – Applies to pre-2007 model year generator engines manufactured after April 1, 2006

<p>Operating Limitations: The Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing provided that the tests are recommended by Federal, State, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing for the emergency engines is limited to 100 hours per year. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that the Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.</p> <p>There is no time limit on the use of emergency stationary ICE in emergency situations. Any operation other than emergency operation, maintenance, and testing, as permitted, is prohibited.</p>	40 CFR 60.4211(e)
Performance Testing (Optional): If the Permittee conducts performance tests, the tests must be completed in accordance with 40 CFR 60.4212(a) through 40 CFR 60.4212(d).	40 CFR 60.4212
Operating Limitations: After December 31, 2008, the Permittee may not install stationary CI ICE that do not meet applicable requirements for 2007 model year engines.	40 CFR 60.4208(a)
Monitoring Requirements	
Monitoring – Hours of Operation: The engine shall contain a non-resettable hour meter prior to startup of the engine.	40 CFR 60.4209(a)
Compliance Requirements	
<p>Compliance Demonstration: The Permittee may use one of the following methods to demonstrate compliance.</p> <ol style="list-style-type: none"> 1. Purchase an engine certified to conform with the emission standards listed in 40 CFR pt. 89, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. 2. Keep records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in 40 CFR 60.4212 and must have been followed correctly. 3. Keep records of engine manufacturer data indicating compliance with the standards. 4. Keep records of control device vendor data indicating compliance with the standards. 5. Conduct an initial performance test to demonstrate compliance with the emissions standards according to the requirements specified in 40 CFR 60.4212, as applicable. 	40 CFR 60.4211(b); 40 CFR pt. 89

Table 2 – Applies to 2007 model year, or later, emergency generator engines

Emission Limits	
Exhaust Opacity: Less than or equal to: 1. 20 percent during the acceleration mode 2. 15 percent during the lugging mode; and 3. 50 percent during the peaks in either the acceleration or lugging modes.	40 CFR 60.4202(a)(2); 40 CFR 89.113(a)
Carbon Monoxide: Exhaust emissions of carbon monoxide shall not exceed 3.5 grams per kilowatt-hour.	40 CFR 60.4202(a)(2); 40 CFR 89.112(a)
Non-Methane Hydrocarbons plus Nitrogen Oxides: Total combined exhaust emissions of non-methane hydrocarbons plus nitrogen oxides shall not exceed 6.4 grams per kilowatt-hour.	40 CFR 60.4202(a)(2); 40 CFR 89.112(a)
Particulate Matter: Exhaust emissions of particulate matter shall not exceed 0.20 grams per kilowatt-hour.	40 CFR 60.4202(a)(2); 40 CFR 89.112(a)
Operating Conditions	
Fuel Type: Diesel fuel must meet the requirements of 40 CFR 80.510(a), which requires that diesel fuel have a maximum sulfur content of 500 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. This rule is applicable beginning October 1, 2007. If the generator was manufactured before 2011, the Permittee may petition the Administrator for approval to use existing non-compliant diesel fuel inventories for up to six months or until exhausted, whichever comes first. If additional time is needed, the Permittee must submit a new application to the Administrator.	40 CFR 60.4207(a); 40 CFR 60.4207(c); 40 CFR 80.510(a)
Fuel Type: Diesel fuel must meet the requirements of 40 CFR 80.510(b), which requires that diesel fuel have a maximum sulfur content of 15 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. This rule is applicable beginning October 1, 2010. If the generator was manufactured before 2011, the Permittee may petition the Administrator for approval to use existing non-compliant diesel fuel inventories for up to six months or until exhausted, whichever comes first. If additional time is needed, the Permittee must submit a new application to the Administrator.	40 CFR 60.4207(a); 40 CFR 60.4207(c); 40 CFR 80.510(b)
Emission Standards: The Permittee shall operate and maintain the unit in accordance with the standards as required by 40 CFR 60.4205, according to the manufacturer's written instructions, or according to procedures developed by the owner or operator that are approved by the engine manufacturer, for the entire life of the engine. Settings for the unit may not be changed unless permitted by the manufacturer.	40 CFR 60.4206; 40 CFR 60.4211(a)

<p>Operating Limitations: The Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing provided that the tests are recommended by Federal, State, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing for the emergency engines is limited to 100 hours per year. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that the Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.</p> <p>There is no time limit on the use of emergency stationary ICE in emergency situations. Any operation other than emergency operation, maintenance, and testing, as permitted, is prohibited.</p>	40 CFR 60.4211(e)
Performance Testing (Optional): If the Permittee conducts performance tests, the tests must be completed in accordance with 40 CFR 60.4212(a) – (d).	40 CFR 60.4212
Operating Limitations: After December 31, 2008, the Permittee may not install stationary CI ICE that do not meet applicable requirements for 2007 model year engines.	40 CFR 60.4208(a)
Monitoring Requirements	
Monitoring – Hours of Operation: The engine shall contain a non-resettable hour meter prior to startup of engine.	40 CFR 60.4209(a)
Compliance Requirements	
Compliance Demonstration: The Permittee must demonstrate compliance by purchasing an engine certified to conform with the emission standards listed in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's specifications.	40 CFR 60.4211(c)
Recordkeeping Requirements	
The Permittee shall maintain records of the operation of the engine in emergency service that are recorded through the non-resettable hour meter. The record must include the time of operation and the reason the generator was in operation during that time. This requirement is applicable when using a generator whose model year is 2011 or later.	40 CFR 60.4214(b)

APPENDIX B

THREE-TIERED PROCEDURE FOR DEMONSTRATING COMPLIANCE WITH HAZARDOUS POLLUTANT EMISSION LIMITS

TIER 1. Calculate Annual HAP Metal Emissions from Stack Test Results

Within 30 days of receiving stack test results indicating total HAP metal emissions in excess of 0.0522 lb/DT, the Permittee will calculate the annual HAP metal emission rate based on the stack test results and the ***actual annual sludge throughput***. A calculation result showing total HAP metal emissions to be less than or equal to 5.14 tons per year will demonstrate that the facility has maintained its status as a minor HAP source.

The Permittee will perform the calculation as follows:

1. Calculate the total amount of sludge fed to the incinerators (M_s) during the 12 month period ending with the month that the stack test was performed.
2. Calculate the annual HAP metal emissions as the product of the 12 month total sludge throughput (M_s) and the measured emission rate in lb/DT.

$$\text{Annual Emissions} = M_s (\text{DT/yr}) \times \text{measured emissions (lb/DT)} \times (\text{ton}/2000 \text{ lb})$$

3. Demonstrate compliance by showing that

$$\text{Annual Emissions} \leq 5.14 \text{ tons per year}$$

Based on historical test performance, this method yields a conservative estimate of actual emissions. This method over-estimates annual emissions because all six incinerators are assumed to have the same metal emission rate as the tested incinerator which yielded the exceedance of the HAP metal emission limit.

By the last day of each subsequent month, the Permittee will perform these calculations for the preceding 12 month period.

TIER 2. Calculate HAP Metal Emissions from Sludge Concentration and Removal Efficiencies

If the Tier 1 calculation fails to demonstrate compliance, the Permittee will calculate annual HAP metal emissions based on the stack test results, ***annual average sludge HAP metal concentrations, demonstrated metal removal efficiencies***, and actual annual sludge throughput.

This approach is similar to Tier 1, except that it accounts for the possibility that abnormally high metal concentrations in the sludge during the annual test may have contributed to the exceedance of the HAP metal emission limit.

A calculation result showing total HAP metal emissions to be less than 5.14 tons per year will demonstrate that the facility has maintained its status as a minor HAP source. The Permittee will perform the calculations as follows:

1. Calculate the metal-specific removal efficiency (η_i) for each HAP metal based on the stack test results and an analysis of metal concentrations in the sludge at the time of the stack test.
2. Calculate the total amount of sludge fed to the incinerators (M_s) during the 12 month period ending with the month that the stack test was performed.

3. Compile sludge metal concentration data, if available, from sludge sampling and analysis. From this data, calculate the average concentration (c_i) for each HAP metal. The average will represent the 12 month period ending with the month that the stack test was performed.

4. Determine annual emissions for each of the 11 HAP metals as a function of the metal-specific removal efficiency (η_i), the average metal-specific sludge concentration (c_i), and the actual annual sludge throughput expressed as a 12-month rolling sum (M_s).

5. Calculate the potential annual emission of total HAP metals by summing up the 11 individual HAP metal emissions:

$$\text{Annual Emission}_{\text{total}} = \sum_{n=1}^{11} \text{Annual Emission}_i$$

6. Demonstrate compliance by showing that

$$\text{Annual Emission}_{\text{total}} \leq 5.14 \text{ tons per year}$$

Based on historical test performance, this method yields a conservative estimate of actual emissions. This method over estimates annual emissions because all six incinerators are assumed to have the same metal removal efficiency as the tested incinerator which yielded the exceedance of the HAP metal emission limit. By the last day of each subsequent month, the Permittee will perform these calculations for the preceding 12 month period.

TIER 3: Calculate Facility-Wide Actual Emissions

If both the Tier 1 and Tier 2 calculations fail to demonstrate compliance, the Permittee will calculate annual ***total HAP emissions from on-permit sources at the plant***, not just incinerator metal HAP emissions. The initial calculation will be performed within thirty days of receiving the stack test results and will represent the 12-month period ending with the month during which the stack test occurred. Subsequent monthly calculations shall be performed by the last day of the month for the previous 12-month period. The Permittee will use methods for calculating actual emissions prescribed in Section 3 of the application with the following exceptions or clarifications:

- Annual HAP metal emissions from sludge incinerators will be calculated as described for the Tier 1 or Tier 2 calculations.
- The PEEP spreadsheet model used to calculate volatile HAP emissions from wastewater processes will use the following inputs: influent concentration for each HAP equal to the historical average influent concentration, and wastewater flow rate equal to the average flow rate for the 12-month period.

The Permittee will continue to follow the Tier 1, Tier 2, or Tier 3 compliance demonstration procedure until the MPCA approves a request from the Permittee to resume using the primary procedures prescribed in the section for demonstrating compliance with the synthetic minor source limits. The type of information used to support a request could include, but is not limited to, the following:

- Data from retesting the incinerator showing compliance with the 0.0522 lb/DT HAP metal limit

- An evaluation of sludge metal concentration data showing that the concentration of one or more metals in the sludge processed during the stack test was significantly higher than the range of concentrations that is representative of normal source operation.

APPENDIX C

Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(A)	Fuel use: space heaters fueled by, kerosene, natural gas, or propane.	Minn. R. 7011.0510/0515
3(D)	Processing operations:	
	2. Equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM-10) inside a building, provided that emissions from the equipment are: a). filtered through an air cleaning system; and b). vented inside of the building 100% of the time.	Minn. R. 7011.0710/0715
3(E)	Storage tanks:	
	1. gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons; and	Minn. R. 7011.0710/0715 <i>OR</i> Minn. R. 7011.1505, subp. 2(B)/1505, subp. 3(B) <i>OR</i> Minn. R. 7011.0105/0110
3(G)	Emissions from a laboratory, as defined in the subpart.	Minn. R. 7011.0510/0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
3(H)	Miscellaneous:	
	4. brazing, soldering or welding equipment;	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
	5. blueprint copiers and photographic processes;	Minn. R. 7011.0105/0110
3(I)	Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than: 1. 4,000 lbs/year of carbon monoxide; and 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone.	Varies for different equipment
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated	Minn. R. 7011.0710/0715

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
	with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.	

Insignificant Activities Required to Be Listed for Part 70 sources

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
4	<p>Individual emissions units at a stationary source, each of which has:</p> <p>A. Potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of carbon monoxide;</p> <p>B. Potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for particulate matter, particulate matter less than ten microns, nitrogen oxide, sulfur dioxide, and VOCs; and</p> <p>C. For hazardous air pollutants, emissions units with:</p> <p>(1) potential emissions of 25 percent or less of the hazardous air pollutant thresholds listed in subp. 5; or</p> <p>(2) combined HAP actual emissions of one ton per year unless the emissions unit emits one or more of the HAPs listed in this subpart.</p>	Varies for different equipment

Conditionally Insignificant Activities

	Rule Description of the Activity	Applicable Requirement
Minn. R. 7008.4110	<p>Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM-10) inside a building, provided that emissions from the equipment are:</p> <p>a). filtered through an air cleaning system; and</p> <p>b). vented inside of the building 100% of the time.</p>	Minn. R. 7011.0710/0715

Appendix D

Modeled PM-10 Stacks/Vents

Modeled Source ID	ATR Modeled Source ID	Source Description	PM10 Emission Rate (g/s)	Exhaust Height (meters)	Exhaust Temperature (K)	Modeled Exit Velocity (m/s)	Stack Diameter (meters)
SV023	SV023	Ash Handling	0.043	23.5	294.1	0.01	0.83
SV031	SV031	Paint Booth	0.799	6.1	294.1	12.29	0.61
SV39-41	SV39-41	FBRs	0.760	32.0	352.0	7.30	1.22
SV042	SV045	Alkaline Stabilization Cell	0.132	15.2	294.3	14.29	1.01
SV043	SV046	Alkaline Stabilization Cell	0.132	15.2	294.3	14.29	1.01
SV044	SV047	Alkaline Stabilization Cell	0.132	15.2	294.3	14.29	1.01
SV045	SV048	Alkaline Stabilization Cell	0.132	15.2	294.3	14.29	1.01
SV046	SV049	Auxiliary Boiler No. 3	0.155	23.7	413.0	3.50	1.22
SV047	SV050	Auxiliary Boiler No. 4	0.155	23.7	413.0	3.50	1.22
SV049	NA	Sand Truck Unloading	0.005	24.4	294.1	9.39	0.25
SV050	NA	Carbon Truck Unloading	0.005	24.4	294.1	9.39	0.25
SV051	NA	Salt Truck Unloading	0.005	24.4	294.1	9.39	0.25

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 12300053-006

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

1. General Information

1.1 Applicant and Stationary Source Location:

Table 1. Applicant and Source Address

Applicant/Address	Stationary Source/Address (SIC Code: 4952)
Metropolitan Council Environmental Services (MCES) 390 Robert Street North St. Paul, MN 55101-1805	MCES Metropolitan Wastewater Treatment Plant 2400 Childs Road St. Paul, MN 55106 Ramsey County
Contact: Mary Gail Scott; 651-602-1073	

1.2 Facility Description

The Metropolitan Council Environmental Services (MCES) -Metropolitan Wastewater Treatment Plant (WWTP) is an advanced secondary waste water treatment facility located at Mississippi River mile 836 in St. Paul, Ramsey County, Minnesota. This plant is the principal sewage treatment facility for the Minneapolis and St. Paul metropolitan area serving more than 80 percent of the area's sewer population, as well as commercial, institutional, and industrial wastewater generators. The facility has a permitted average wet weather design flow of 314 million gallons per day; discharge of treated waste water to the Mississippi River is authorized by NPDES/SDS permit number MN0029815. Primary and secondary sludges from the waste water treatment process, as well as sludges from other MCES treatment facilities, are blended and thickened prior to incineration on-site.

The primary source of emissions at this facility is the incineration of sewage sludge, along with small amounts of spent activated carbon and scum generated on-site in three fluidized bed reactors (FBR). Each identical FBR is equipped with a pollution control train consisting of carbon injection, a high temperature fabric filter baghouse, a venturi scrubber and a high efficiency wet electrostatic precipitator. The FBRs normally fire natural gas as an auxiliary fuel, but are capable of using No. 2 fuel oil. Emissions also result from aeration of the waste water during the treatment process, operation of auxiliary steam boilers for plant heating, operation of emergency generators, ash and materials handling, fuel storage activities, spray painting for maintenance activities, and other routine maintenance activities.

1.3 Description of any Changes Allowed with this Permit Issuance

This permit action is for the reissuance of the facility's Part 70 permit. This reissuance updates facility description data, results from performance testing and represents the facility's current operating conditions.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

12300053-005 February 05, 2007	Authorizes the use of two 2,000 kW diesel temporary generators, which will provide emergency power for the effluent pump station
12300053-004 June 28, 2004	Authorizes operation for Fabric Filters to be used instead of ESPs.
12300053-003 Not Issued	None
12300053-002 November 15, 2002	Authorizes construction and operation of the Solids Processing Facility, which upgraded the prior multiple hearth incinerators to the current fluidized bed incinerators/reactors (FBR's)
12300053-001 March 13, 2001	Part 70 Total Facility Permit issuance

1.5 Facility Emissions:

Table 2. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	PM _{2.5} tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC Tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	59.9	47.8	47.8	58.0	318.0	163.5	39.1	0.7	3.7	12.3
Total Facility Actual Emissions (2007)	3.01	22.6	-	28.3	157.0	24.84	2.2	0.0	HAPs not reported in emission inventory	

Table 3. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	X	X	X
Part 70 Permit Program	X	X	X
Part 63 NESHAP		X	
Non-Attainment Area Review (NAAR)	X*		

* Although the facility as modified is not a Non-Attainment Area Review major source, it has been a major source in the past and is therefore regulated as one under New Source Review.

2. Regulatory and/or Statutory Basis

New Source Review

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

Part 70 Permit Program

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

New Source Performance Standards (NSPS)

The facility is subject to the following New Source Performance Standards, 40 CFR pt. 60, Subp:

- IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (which may be applicable to the emergency generators at this facility based on their manufacture date)
- O—Standards of Performance for Sewage Treatment Plants
- Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has accepted limits on HAP usage such that it is a non-major source under 40 CFR pt. 63.

Even so, 40 CFR pt. 61 Subpart E-National Emission Standards for Mercury applies.

Minnesota State Rules

Affected portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0150: Control of Fugitive Particulate Matter
- Minn. R. 7011.0715: Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.1310: Standards of Performance for New Sewage Sludge Incinerators
- Minn. R. 7011.1315: Incinerators – Monitoring of Operations
- Minn. R. 7011.1320: Incinerators – Performance Test Methods
- Minn. R. 7011.1325: Incinerators – Performance Test Procedures
- Minn. Stat. Section 116.85: Monitors Required for Other Incinerators

Compliance Assurance Monitoring (CAM)

Table 4. CAM Summary

Unit	Control	CAM Applicability	Pollutant	Monitoring
EU035 Fluidized Bed Reactor/Incinerator	CE028 (Fabric filter)	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA approved performance test. Continuous monitoring of opacity.
	CE029 (Venturi Scrubber)	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA approved performance test. Continuous monitoring of opacity.
	CE030 (Wet ESP)	Other	PM/PM ₁₀	Continuous secondary voltage monitoring correlated with the latest MPCA approved performance test; continuous monitoring of primary and secondary current for each transformer/rectifier, spark rate, number of fields in operation, inlet and outlet temperatures. Continuous oxygen content monitoring correlated with the most recent approved MPCA approved performance test. Continuous monitoring of opacity.
EU036 Fluidized Bed Reactor/Incinerator 2	CE031 (Fabric filter)	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA approved performance test. Continuous monitoring of opacity.
	CE032 (Venturi Scrubber)	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA approved performance test. Continuous monitoring of opacity.
	CE033 (Wet ESP)	Other	PM/PM ₁₀	Continuous secondary voltage monitoring correlated with the latest MPCA approved performance test; continuous monitoring of primary and secondary current for each transformer/rectifier, spark rate, number of fields in operation, inlet and outlet temperatures. Continuous oxygen content monitoring correlated with the most recent approved MPCA approved performance test. Continuous monitoring of opacity.
EU037	CE034 (Fabric	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA

Unit	Control	CAM Applicability	Pollutant	Monitoring
Fluidized Bed Reactor/Incinerator 3	filter)			approved performance test. Continuous monitoring of opacity.
	CE035 (Venturi Scrubber)	Other	PM/PM ₁₀	Continuous pressure drop monitoring correlated with the most recent MPCA approved performance test. Continuous monitoring of opacity.
	CE036 (Wet ESP)	Other	PM/PM ₁₀	Continuous secondary voltage monitoring correlated with the latest MPCA approved performance test; continuous monitoring of primary and secondary current for each transformer/rectifier, spark rate, number of fields in operation, inlet and outlet temperatures. Continuous oxygen content monitoring correlated with the most recent approved MPCA approved performance test. Continuous monitoring of opacity.
EU038 Alkaline Stabilization Cell	CE037-040 (Fabric Filter)	Other	PM/PM ₁₀	Continuous pressure drop monitoring
EU039 Alkaline Stabilization Cell		Other	PM/PM ₁₀	Continuous pressure drop monitoring
EU040 Alkaline Stabilization Cell		Other	PM/PM ₁₀	Continuous pressure drop monitoring
EU041 Alkaline Stabilization Cell		Other	PM/PM ₁₀	Continuous pressure drop monitoring

For large pollutant specific emission units, records of the monitored parameter must be made at a minimum of 4 times per hour, or once every 15 minutes. For other PSEUs (not large), records must be made at a minimum of once per 24 hours. See the Attachment to this document for the applicants CAM submittal.

Continuous monitoring is specified in the permit for all units subject to CAM. The continuous monitoring methods in the permit are correlated with the PM and PM₁₀ emission limits and are used to determine compliance on a continuous basis. The continuous monitors are also consistent with the averaging periods established for the PM and PM₁₀ emission limits.

Table 5. Regulatory Overview of Facility

Level*	Applicable Regulations	Comments:
GP 003 – Emergency Generators	40 CFR pt. 60, subp. IIII Minn. R. 7011.2300 Minn. R. 7007.0800, subp. 2	Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines applies to all generators brought on site manufactured after April 1, 2006.
GP004 – Ash handling systems; Related control equipment	Minn. R. 7011.0700 - .0735 40 CFR § 52.21 40 CFR § 63.2 State Implementation Plan (SIP) Order for PM10	Particulate matter and PM-10 limits taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21 Particulate matter limits taken as a surrogate for metals emissions to keep the potential emissions of the facility so that the facility is not a “major source” as defined by 40 CFR § 63.2. Limits taken to comply with the facility’s SIP Order for the PM10 nonattainment area
GP006 – Fluidized Bed Reactors/Incinerators (FBRs); Related control equipment	Minn. R. 7011.1300 - .1350 40 CFR pt. 60, subp. A 40 CFR pt. 60, subp. O 40 CFR pt. 61, subp. A 40 CFR pt. 61, subp. E 40 CFR § 52.21 40 CFR § 63.2 State Implementation Plan (SIP) Order for PM10 Minn. Stat. § 116.85	Particulate matter, PM10, and lead limits taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21 Hydrochloric acid, metals, and volatile HAP limits taken to keep the potential emissions of the facility so that the facility is not a “major source” as defined by 40 CFR § 63.2 Limits taken to comply with the facility’s SIP Order for the former PM10 non-attainment area. Metropolitan Council and MPCA staff disagree on the applicability of Minn. Stat. 116.85.
GP007 - Auxiliary boilers	40 CFR pt. 60, subp. A 40 CFR pt. 60, subp. Dc 40 CFR § 52.21 State Implementation Plan (SIP) Order for PM10	Operational limits on fuel oil and hours of operations taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21. Operational limits on fuel oil and hours of operations taken to comply with the facility’s SIP Order for the former PM10 non-attainment area
GP008 - Alkaline Stabilization Cell Ventilation Related control equipment	Minn. R. 7011.0700 - .0735 40 CFR § 52.21 40 CFR § 63.2 State Implementation Plan (SIP) Order for PM10	Particulate matter, PM10, and hydrogen sulfide limits taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21. Particulate matter limits taken as a surrogate for metals emissions keep the potential emissions of the facility so that the facility is not a “major source” as defined by 40 CFR § 63.2. Limits taken to comply with the facility’s SIP Order for the former PM10 non-attainment area
GP009 –	Title I Conditions: Limit	PM/PM10 control requirement

FBR Fabric Filter Baghouse	taken to avoid classification as a major modification	
GP010 – FBI Venturi Scrubbers	Title I Conditions: Limit taken to avoid classification as a major modification	PM/PM10 control requirement
GP011 – FBR Wet ESP	Title I Conditions: Limit taken to avoid classification as a major modification	PM/PM10 control requirement
GP013 – Alkaline Stabilization and Ash Baghouse	Title I Conditions: Limit taken to avoid classification as a major modification	PM/PM10 control requirement.
GP014 – Three stage Odor Scrubbers	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7007.0800, subp. 16(J)	H2S control requirement.
GP015 – Feed tanks, vents, and cake bins for centrifuges	Minn. Stat. 116.07, subd. 4a	These devices were described in the EAW as vented through operating fluidized bed incinerators for odor/H2S control, but no other applicable requirement exists.
GP016 – FBR Enhanced Hg Control Equipment	Minn. R. 7007.0800, subp. 14 and 16(J) Minn. R. 116.07	The equipment to control mercury from the fluidized bed incinerators/reactors is not required to meet the permitted emission limits, but is included in this permit as control equipment on site.
EU034 – Ash Loadout Housekeeping Vacuum	Title I Condition: State Implementation Plan (SIP) Order for PM10	Limits taken to comply with the facility's SIP Order for the PM10 non-attainment area
CE051 – Bio Filter	Minn. R. 7007.0800, subp. 16(J)	The Biofilter is added control equipment to pre-existing processes for hydrogen sulfide control.
CE052 – Bio Filter	Minn. R. 7007.0800, subp. 16(J)	The Biofilter is added control equipment to pre-existing processes for hydrogen sulfide (odor) control.

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3. Technical Information

3.1 Minn. Stat. § 116.85

Under Minnesota rules, the sewage sludge burning process at this facility is regulated by Minn. R. 7011.1300 to 7011.1350, "Sewage Sludge Incinerators." The rule definition of "sewage sludge incinerator" is "any furnace or other device used in the process of burning

sludge produced by a sewage treatment facility.” The Waste Combustor rule uses a definition of “incinerator” and “waste combustor” that include only those furnaces that burn solid waste. The Council suggests that the definition in the Waste Combustor rule should be applied to exclude its incineration units from the scope of Minn. Stat. § 116.85.

The MPCA staff believes the waste combustor rule definitions of “incinerator” and “waste combustor” are intended only to define such units for purposes of application of the waste combustor rule. The MPCA staff agrees that the waste combustor rule does not apply to the Council’s wastewater treatment plant.

The language of Minn. Stat. § 116.85, however, indicates that it is intended to apply in to permits for all types of incineration units. Minn. Stat. § 116.85 begins with the phrase “[n]otwithstanding any other law to the contrary, . . .” The section goes on to specify that the incinerator permits covered by the section are those that contain emission limits for dioxin, cadmium lead and mercury. The MPCA reads the statute to intend to cover any type of incinerator

Additionally, several years ago, the Council staff appeared at a legislative committee meeting and requested that Minn. Stat. § 116.85, subd. 1a(b) be amended. At this meeting, the Council staff contended that mercury emissions can be determined through sampling of waste material and analyzing for mercury, and can be done less expensively than performing air emissions testing. The Council sought a legislative change to allow it to demonstrate the mercury content of air emissions. The Legislature added the following sentence in response to the Council’s request: “with the approval of the commissioner, an incinerator facility may use methods other than stack testing for determining mercury in air emissions.” The legislative committee did not conclude and MCES did not contend that the statute did not apply to sewage sludge burning devices.

Because the definition of “sewage sludge incinerator” contains the word “incinerator,” and because Minn. Stat. 116.85 was amended at the request of a sewage sludge incineration facility MPCA staff hold the position that Minn. Stat. 116.85 applies to the sewage sludge burning devices at the facility. Requirements based on this statute are included in the permit, including: (a) a continuous monitor for carbon monoxide emissions on each incineration unit; (b) a requirement to perform air emissions testing for mercury; and (c) mandatory shutdown of an incineration unit if a permitted emission limit is not achieved.

3.2 Mercury Control Equipment

The Minnesota Legislature passed a law encouraging air emission facilities to voluntarily reduce their mercury emissions. The Permittee is currently participating in this program and has submitted a Voluntary Mercury Reduction Agreement (VMRA) that has been acknowledged by the commissioner. A component of the VMRA is the installation of control equipment to reduce mercury emissions though the injection of activated carbon. This control equipment is included in the permit, as is the requirement to operate the equipment and report its operation. However, operation of this equipment is not necessary for the Permittee to meet its permitted mercury emission limits, and therefore no operating

limits were established. The Permittee has the flexibility to determine the mode of operation.

3.3 Status of PM10 non-attainment area

The PM-10 Non-Attainment area in which the facility is located was officially redesignated and is no longer a non-attainment area. The redesignation occurred on September 24, 2002. However, construction of this facility was authorized on August 21, 2001, prior to permit issuance, under the authority contained in Minn. R. 7007.0750, subp. 7(A)(2). Construction began a few weeks later. At the time construction began, the area was therefore still designated as non-attainment. Because the permit was fundamentally a "pre-construction" permit, establishing conditions to avoid regulation under New Source Review, the language applicable to the non-attainment status remains. In other words, the language of the permit and associated documents assumes that the area is a PM-10 non-attainment area.

3.4 Calculations of Potential to Emit

Attachment 1 to this TSD contains the facilities submitted PTE summary,

3.5 Periodic Monitoring and CAM

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

For CAM, the Permittee submitted a CAM proposal as required by 40 CFR § 64.3. It can be found Attached to this TSD. Further discussion of decisions about CAM can be found in Table 4.

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

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

Table 6 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 6. Periodic Monitoring

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
GP 003 – Emergency Generators	< 500 hours per year of operation for each emergency	Engines subject to 40 CFR pt. 60, subp. III shall contain a non- resettable hour meter	Limit based on U.S. EPA memorandum entitled “Calculating Potential to Emit (PTE) for Emergency Generators”, dated September 6, 1995.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	generator	prior to startup of engine.	
GP004 – Ash handling systems; Related control equipment	<p>a. PM: ≤ 0.005 grains/dscf (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A); Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2)</p> <p>b. PM₁₀: ≤ 0.005 grains/dscf (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM₁₀; 40 CFR 52.1230; 40 CFR pt. 52, subp. Y; Minn. R. 7007.0800, subp. 2)</p> <p>c. Opacity: $\leq 20\%$</p>	<p>a. & b.: Performance Testing</p> <p>c: Visible emissions monitoring</p>	<p>a. & b. Performance testing to verify the compliance status with the permitted limits.</p> <p>c. Visible emissions monitoring and recordkeeping.</p>

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	(Minn. R. 7011.0515)		
GP006 – Fluidized Bed Incinerators/ Reactors (FBRs); Related control equipment	<p>a. Front-half Particulate Matter: ≤ 1.30 lb/ton dry sludge input (40 CFR 60.152(a)(1); Minn. R. 7011.1310, item A.)</p> <p>b. Front-half Particulate Matter: ≤ 2.57 lbs/hr</p> <p>(Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21)</p> <p>c. PM_{10}: ≤ 1.90 lbs/hour (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM_{10}; 40 CFR 52.1230; 40 CFR pt. 52, subp. Y; Minn. R. 7007.0800, subp. 2)</p>	O&M Plans, trigger levels, monitoring, recordkeeping and performance testing	O&M Plans, trigger levels, monitoring, recordkeeping and performance testing verify the compliance status with the permitted limits.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	<p>d. Lead: ≤ 0.0097 lbs/ton of dry sludge charged (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21)</p> <p>e. Opacity: $\leq 20\%$ using 6-minute average. (40 CFR 60.152(a)(2); Minn. R. 7011.1310, item B.)</p> <p>f. Hydrochloric Acid: ≤ 0.1 lbs/ton of dry sludge charged (Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2.)</p> <p>g. Mercury ≤ 0.0036 lbs/ton of dry sludge charged (Minn. R. 7007.0800, subp. 2)</p> <p>h. Volatile HAPs ≤ 0.034 lbs/ton of dry sludge charged (Title I Condition: Limit taken to avoid</p>		

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	<p>classification as a major source under 40 CFR 63.2)</p> <p>i. HAP-Metal \leq 0.065 lbs/ton of dry sludge charged (Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2)</p>		
GP007 - Auxiliary boilers	<p>a. PM₁₀: \leq 15.37 lbs/million pounds of steam</p> <p>OR</p> <p>PM₁₀: \leq 25.82 lbs/calendar day</p> <p>(Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM₁₀; 40 CFR section 52.1230; 40 CFR pt. 52, subp. Y)</p> <p>b. Opacity \leq less than or equal to 20 percent opacity except for one six-minute period per</p>	<p>a. & b. Monitoring and Recordkeeping</p> <p>b: Visible emissions monitoring</p>	<p>Operational limits on fuel oil and hours of operations taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21</p> <p>Operational limits on fuel oil and hours of operations taken to comply with the facility's SIP Order for the PM₁₀ non-attainment area</p> <p>Visible emissions monitoring and recordkeeping.</p>

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	hour of not more than 60 percent opacity. (40 CFR 60.43c(c))		
GP008 - Alkaline Stabilization Cell Ventilation Related control equipment	<p>a. Total Particulate Matter: ≤ 0.005 grains/dscf (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A); Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2)</p> <p>b. PM_{10}: ≤ 0.005 grains/dscf (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: State Implementation Plan for PM_{10}; 40 CFR 52.1230; 40 CFR pt. 52, subp. Y; Minn. R. 7007.0800, subp. 2)</p> <p>c. Opacity \leq less</p>	Monitoring, Recordkeeping and Performance Testing	Monitoring, recordkeeping and performance testing verifies compliance with emission limits

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	<p>than or equal to 20 percent opacity using 6-minute average (Minn. R. 7011.0715, subp. 1(B); Minn. R. 7017.2060, subp. 5(D))</p> <p>d. Hydrogen Sulfide \leq less than or equal to 0.18 lbs/hr (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21)</p>		
GP009 – FBR Fabric Filter Baghouse	<p>Pressure Drop \geq 1.0 inches of water column and \leq 10.0 inches of water column (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Minn. R. 7007.0800, subp. 4 and 5; source under 40 CFR 63.2; State</p>	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the pressure drop range.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding Baghouse O&M)		
GP010 – FBR Venturi Scrubbers	Pressure Drop \geq 10.0 inches of water column (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; Title 1 Condition: State Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M)	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the pressure drop range.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
GP011 – FBR Wet ESP	<p>Secondary Voltage ≥ 10.0 kilovolts (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M)</p> <p>Inlet Temperature ≤ 500 degrees F (Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M)</p>	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the operating range.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	Inlet Temperature ≤300 degrees F (Minn. R. 7007.0800, subp. 16(J) regarding WESP O&M)		
GP013 – Alkaline Stabilization and Ash Baghouse	Pressure Drop ≥ 1.0 inches of water column and ≤ 10.0 inches of water column (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR, pt 51, Appendix S; Title I Condition: Limit taken to avoid classification as a major source under 40 CFR 63.2; Title 1 Condition: State Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800,	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the pressure drop range.

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
	subp. 16(J) regarding baghouse O&M)		
GP014 – Three stage Odor Scrubbers	<p>Maintain flow in the recirculation loop. (Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M)</p> <p>pH ≥ 2.0 and ≤ 7.0 in any one of the three stages of the Three-Stage Odor Scrubber concurrently with $\geq 8.0 \leq 12.5$ in the other two stages (Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M)</p>	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the specified ranges.
GP015 – Feed tanks, vents, and cake bins for centrifuges	Minn. Stat. 116.07, subd. 4a	n/a	When the process equipment controlled by the Fluidized Bed Reactor is operating, the Permittee shall record all times when the process equipment emissions are not vented through an operating Fluidized Bed Reactor and the 3-stage odor scrubber is not operating (bypass). The Permittee shall record the date of the bypass, the length of time of the bypass, and the reason for the bypass. The Permittee

Level*	Requirement (basis – see also the attached CD-01)	Additional Monitoring	Discussion
			shall report the above information in the Semiannual Deviations Report.
GP016 – FBR Enhanced Hg Control Equipment	Operate and maintain mercury control equipment (Minn. Stat. 116.07, subd. 4a)	Monitoring and Recordkeeping	Monitoring and recordkeeping of the mercury additive's mass feed rate and the temperature where the mercury is introduced in the flue gas stream verifies compliance.
EU034 – Ash Loadout Housekeeping Vacuum	Total PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715, subp. 1A) PM10: ≤ 0.05 grains/dscf (Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp. Y) Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	Monitoring and recordkeeping	Monitoring and recordkeeping verifies compliance.
CE051 and CE 052– Bio Filters	Pressure Drop ≥ 4.0 inches of water column and ≤ 18.0 inches of water column (Minn. R. 7007.0800, subp. 16(J) regarding Biofilter O&M)	Monitoring and Recordkeeping	Monitoring and recordkeeping verifies compliance with the pressure drop range.

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3.6 Insignificant Activities

The facility has several operations which are classified as insignificant activities. These are listed in the Appendix to the permit.

3.7 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Deviation from normal format: GP003 for emergency generators references requirements that are listed in the Appendix . This approach was used because 40 CFR pt. 63, subp. IIII contains different requirements for units based on their manufacture date. Since some of the generators are brought onsite temporarily, it cannot be determined which requirements they are subject to prior to their arrival at the facility.

3.8 Comments Received

Public Notice Period: August 01, 2009 – August 31, 2009

EPA 45-day Review Period: December 28, 2009 – February 12, 2010

Comments were received during the public notice period. Attached are the comments as well as the MPCA's response to those comments. The revised permit was sent to EPA for their 45-day review on December 28, 2009. Comments were not received from EPA during their review period.

4. Conclusion

Based on the information provided by the facility, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300053-006 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules. This permitting action is prepared under Title V permit reissuance timelines.

Staff Members on Permit Team:	Steven J. Gorg, M.S., P.E. (permit writer/engineer)
	Steve Palzkill (enforcement)
	Curt Stock (stack testing)
	Bruce Braaten (peer reviewer)
	Anne Jackson (Hg reviewer)
	Catherine Neuschler (SIP reviewer)
	Beckie Olson (support staff)
	Laurie O'Brien (support staff)

AQ File No. 879; DQ 684

Attachments: 1. PTE Summary
2. CD-01 Forms
3. CAM Submittal
4. Comments Received

Attachment 1:
PTE Summary

Attachment 2:
CD-01 Forms

Attachment 3:
CAM Submittal

Attachment 4:
Comments Received