AIR EMISSION PERMIT NO. 12300053- 002
IS ISSUED TO

METROPOLITAN COUNCIL

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 are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	December 13, 1995
Major Amendment	January 14, 1999 (Revised March 8, 2001)

This permit amends Air Emissions Permit No. 12300053- 001 and authorizes the Permittee to operate and construct 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.

Permit Type: Federal; Part 70/Major for NSR	**Amendment Type:** Major; Part 70/Limits to avoid NSR and 40 CFR Part 63
Issue Date: March 13, 2001	**Issue Date:** November 15, 2002

Expiration: March 13, 2006
All Title I Conditions do not expire.

Ann Foss
Major Facilities Section Manager
Majors & Remediation Division

for Karen A. Studders, 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. Certain requirements which have been determined not to apply are listed in Table A of this permit. 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 Wastewater Treatment Plant is an advanced secondary wastewater treatment facility with a nominal design capacity of 250 million gallons per day. The plant is located on the east bank of the Mississippi River at mile 836. It is the principal sewage treatment facility for the Minneapolis and St. Paul metropolitan area serving more than 80 percent of the area's sewered population as well as commercial, institutional, and industrial wastewater generators. Solids removed in the wastewater treatment process are managed through incineration, which is the primary source of air emissions from the facility. In addition, small amounts of scum from the treatment process and activated carbon from odor control systems are also incinerated. Emissions also result from operation of heating boilers, emergency generators, spray painting for maintenance, and aeration of the wastewater in the treatment process.

AMENDMENT DESCRIPTION:

This permit amendment authorizes construction and operation of a new Solids Processing Facility composed of three fluidized bed sewage sludge incinerators, an alkaline stabilization system, and ancillary materials handling systems for the incinerators and stabilization system. The facility will also include two auxiliary boilers and an additional emergency back-up diesel-driven electric generator.

The new Solids Processing Facility will replace the multiple hearth incinerators and associated equipment, and will eliminate the emergency relief stacks. Incineration and alkaline stabilization will serve as methods for processing the solids. In addition, Civil Action No. 99-CV-1105 (Consent Decree) requires the replacement of the multiple hearth incinerators with the fluidized bed incinerators. The facility is further described in Air Emissions Permit No. 12300053-001.

One building will house the solids processing equipment, the fluidized bed incinerators with associated air pollution control equipment, the alkaline stabilization equipment, an odor control system and related product storage facilities. A second building to provide storage of alkaline stabilized bio-solids will contain the stored material and an odor control system.

The Zimpro thermal conditioning process and the rotating biological surfaces will be decommissioned. Their removal will represent a substantial decrease in odor generation. The two existing auxiliary boilers will also be decommissioned.

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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
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 II 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
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
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. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.	Minn. R. 7011.0020; 40 CFR 60.12 as applicable ; 40 CFR 61.19 as applicable
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, nor subject to the citizen suit provisions of section 304 of the Clean Air Act, 42 U.S.C. section 7604.	Minn. R. 7030.0010 through Minn. R. 7030.0080
The Permittee shall comply with the General Condtions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
The Permittee shall not make changes that increase, from any emission point listed in Appendix III, the PM-10 emission rate (whether in lb/ton, lb/mmBtu, lb/hr, or gr/dscf), or alter the stack parameters listed in Appendix III in such a way as to deviate from the building wake effects assumed in the PM-10 computer modeling underlying this permit without first obtaining a major permit amendment demonstrating that the ambient PM10 concentrations will not increase. For the stacks listed in Appendix III, the following activities are considered to change PM-10 emissions or to deviate from significant modeling assumptions: a. decrease in exit gas velocity b. decrease in exit gas temperature c. reduction in stack height d. increase in stack diameter e. any construction or modification of structures that increase effective structure dimensions in such a way as to deviate from the building wake effect assumed in the underlying PM-10 modeling.	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)
Solids Content: less than or equal to 37 percent by weight averaged over each calendar month. This limit only applies to sludge generated from the two centrifuges installed in 2002. This limit only applies to sludge generated from the two centrifuges installed in 2002 that is being fed to the Multiple Hearth Incinerators.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
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 equipment that is not yet operational at the time of permit issuance, draft O & M plans 180 days following initial startup.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J) regarding quality assurance procedures

Fugitive Control Plan: due 60 days after 03/13/01. The plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. The Permitee shall follow the actions and record keeping specified in the control plan. The plan may be amended by the Permittee with the Commissioner's approval. The permittee may be required to amend the control plan and/or install and operate particulate matter ambient air monitors if the Commissioner determines that the operation of the stationary source, together with other sources of particulate matter, creates conditions under which the Minnesota ambient air standard for particulate matter might be exceeded.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and record keeping specified in the control plan. 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
Hydrogen Sulfide Ambient Monitoring: The Permitee shall establish a hydrogen sulfide monitoring network to measure the ambient concentration of hydrogen sulfide to verify that Minnesota Ambient Air Quality Standards are not being violated. The Permittee shall monitor for 12 continuous months. The network must be in place and operating within 50 months of permit issuance. A Hydrogen Sulfide Monitoring Plan created to monitor the facility as described in this permit shall be submitted to the MPCA and approved before the network can be constructed. The permittee shall draft the plan pursuant to ¿Exhibit M - Ambient Air Monitoring Procedures For Determination Of Compliance¿ in Appendix of this permit. The plan shall include:	Minn. R. 7007.0800, subp. 2; Minn. R. 7009.0060
CONTINUED - Monitoring at or near as practicable to the Worker 4 Receptor and Worker 8 Receptor locations as identified on Figure 1 of the Air Toxics Review Addendum, Air Toxics Acute Hazard Analysis, Metropolitan Wastewater Treatment Plant Solids Processing Improvement Project, March 13, 2001. - Concentrations and averaging times appropriate for determining compliance with the State Ambient Air Quality Standards in Minn. R. 7009.0800. - An overall sampling period of at least 12 consecutive months for each monitor. 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.	CONTINUED Minn. R. 7007.0800, subp. 2; Minn. R. 7009.0060
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
D. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A or B. As provided in Minn. R. 7017.2020, subp. 2, the Permittee may conduct performance testing required by this permit as included in an approved performance test plan.	Minn. R. ch. 7017
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
Performance Test Notification: due 30 days before each performance test.	Minn. R. 7017.2030, subp. 1; 40 CFR 60.7(a)(6) regarding advance notice, as applicable; 40 CFR 60.8(d) regarding advance notice, as applicable; 40 CFR 60.154(d) regarding notification, as applicable; 40 CFR 61.13(c) as applicable; 40 CFR 61.53(d)(3)
Performance Test Plan: due 30 days before each performance test. Draft the plan pursuant to Minn. R. 7017.2030, subp. 2 & 3 A single test plan can be submitted for all testing required in each calendar year.	Minn. R. 7017.2030, subp. 2; Minn. R. 7017.2030, subp. 3; 40 CFR 61.13(e) as applicable
Performance Test Pretest Meeting: due 7 days before each performance test. (7 days before the first Performance Test scheduled for each calendar year of testing). See Table B for additional performance testing requirements.	Minn. R. 7017.2030, subp. 4
Performance Test Report: due 45 days after each performance test, whether or not the test data indicates compliance with the applicable emission limits or operating conditions and whether or not the test was completed according to the approved test plan.	Minn. R. 7017.2035, subp. 1; Minn. R. 7017.2035, subp. 2 regarding the 45-day submittal; 40 CFR 60.8(a) regarding performance test reports, as applicable

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Performance Test Report - Microfiche Copy: due 105 days after each performance test.	Minn. R. 7017.2035, subp. 2 regarding microfiche submittal
E. MONITORING REQUIREMENTS	hdr
E.01. General monitoring requirements	hdr
Monitoring: Conduct all monitoring in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A or B.	Minn. R. ch. 7017
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.	Minn. R. 7007.0800, subp. 4(D)
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.	Minn. R. 7007.0800, subp. 4(D)
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. 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) as applicable; Minn. R. 7017.1090, subp. 1; Minn. R. 7007.0800, subp. 2
E.02. CEMS requirements	hdr
Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1 regarding CEMS
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup nor later than 90 days after the due date of the first excess emissions report required for the CEMS.	40 CFR 60.13(b) as applicable; Minn. R. 7017.1050, subp. 1
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3 regarding CEMS Pretest Meeting date
CEMS Certification Test Plan: due 30 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 1 & 2; 40 CFR 60.7(a)(5) regarding CEMS, as applicable
CEMS Certification Test Report: due 45 days after CEMS 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 CEMS, as applicable
CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 3 regarding CEMS
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 calender 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
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA).	Minn. R. 7017.1180, subp. 1
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Installation Notification: due 60 days before installing the continuous opacity monitoring system.	Minn. R. 7017.1040, subp. 1 regarding COMS
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
COMS Calibration Error Audit Results Summary: due 30 days after end of each calendar half-year following COMS Calibration Error Audit.	Minn. R. 7017.1220
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)
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
Sludge Solids Content: Record the average sludge solids content for each calendar month. This limit only applies to sludge generated from the two centrifuges installed in 2002 that is being fed to the Multiple Hearth Incinerators.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
G. REPORTING	hdr
(see also Performance Testing Requirements and Monitoring Requirements)	hdr
Compliance Certification: due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA Regional Office in Chicago. The report covers all deviations experienced during the calendar year.	Minn. R. 7007.0800, subp. 6 (C)
Emissions Inventory Report: due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner	Minn. R. 7019.3000, Minn. R. 7019.3020 through Minn. R. 7019.3030
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 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
Request for Information Response: due 1,096 days after Permit Issuance. Submit modeling data as specified in MPCA guidance for Modeling Information Requests for NOx. This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
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. TRANSITION FROM EXISTING TO NEW EQUIPMENT	hdr
For equipment included in Permit Number 12300053-001 that is not included in this permit, the Permittee shall comply with the conditions in Permit Number 12300053-001 until the equipment to which those conditions apply is retired.	Minn. R. 7007.0800, subp. 3 regarding previously-permitted equipment
The Permittee shall permanently retire two of the Multiple Hearth incinerators (EU008-EU013) within 180 days of the Initial Startup of each Fluidized Bed Incinerator (EU035-EU037).	40 CFR 52.21(b)(3)(viii) regarding replacement incinerators; 40 CFR 51, Appendix S.II.A.6(vi) regarding replacement incinerator
The Permittee shall permanently retire one existing Auxiliary Boiler (EU014-EU015) within 180 days of the Initial Startup of each replacement Auxiliary Boiler (EU042-EU043).	40 CFR 52.21(b)(3)(viii) regarding replacement boilers; 40 CFR 51, Appendix S.II.A.6(vi) regarding replacement boilers
J. MISCELLANEOUS	hdr
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
K. DEFINITIONS	hdr
Initial Performance Test: A test required under 40 CFR 60.8.	40 CFR 60.8 regarding the definition.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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
ESP: Dry electrostatic precipitator	Minn. R. 7007.0800, subp. 2
WESP: Wet Electrostatic Precipitator	Minn. R. 7007.0800, subp. 2
H2S: Hydrogen sulfide	Minn. R. 7007.0800, subp. 2
FBI: Fluidized Bed Incinerator	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 003 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

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity using 6-minute Average once operating temperatures have been attained; Limit applies to each unit individually.	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.	Minn. R. 7011.2300, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Each emission unit shall be operated only as an Emergency Internal Combustion Engine. Emergency Internal Combustion Engine (E-ICE) means an internal combustion engine which only operates when no other power source is available to meet life safety requirements and for necessary routine periodic testing. Life safety requirements are circumstances that demand power to avoid death, illness, injury, or damage to process equipment or product. An E-ICE is a power source that may be used to generate electricity, pump water or other liquids, or other application. An E-ICE does not include internal combustion engine electric generators operated by an electric service provider to produce electric power for sale, or operated by an electric customer during periods of intentional electric service disruption by the electric service provider.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y
Record the date of use for each Emergency Internal Combustion Engine, the length of time each Emergency Internal Combustion Engine was used, and the reason for using each Emergency Internal Combustion Engine.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 004 Ash Handling Systems**

Associated Items: EU 019 Local Exhaust Control Ash Loadout

EU 048 Ash Loadout Transporters

EU 049 Coal Ash Transporters

EU 050 Quicklime Transporter

SV 023

What to do	Why to do it
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)
TESTING REQUIREMENTS	hdr
Performance Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup to measure Total Particulate Matter and PM-10 emissions.	Minn. R. 7017.2020, subp. 1
Testing Frequency Plan: due 60 days after Initial Performance Test for Total Particulate Matter and PM-10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 006 Fluidized Bed Incinerators (EU035, EU036, EU037)**

Associated Items:
CE 028 Electrostatic Precipitator - High Efficiency
CE 029 Venturi Scrubber
CE 030 Electrostatic Precipitator - High Efficiency
CE 031 Electrostatic Precipitator - High Efficiency
CE 032 Venturi Scrubber
CE 033 Electrostatic Precipitator - High Efficiency
CE 034 Electrostatic Precipitator - High Efficiency
CE 035 Venturi Scrubber
CE 036 Electrostatic Precipitator - High Efficiency
CE 048 Other
CE 049 Other
CE 050 Other
EU 035 Fluidized Bed Sewage Sludge Incinerator 1
EU 036 Fluidized Bed Sewage Sludge Incinerator 2
EU 037 Fluidized Bed Sewage Sludge Incinerator 3
SV 039
SV 040
SV 041

What to do	Why to do it
A. EMISSION LIMITS	hdr
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 1.90 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
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 FBIs 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 FBIs 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 FBIs 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 FBI, 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 105 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
Process Throughput: less than or equal to the 1-hour dry sludge feedrate using 8-hour Block Average, set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where PM-10 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, 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

FBI 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 Useage	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. The trigger levels themselves are not limits, and there is no penalty for exceeding them.)	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 FBIs 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 FBI's tested emissions exceed permit requirements based on the results of the performance test, the Permittee shall do the following, unless the FBI owner or operator notifies the commissioner within 14 days after the FBI 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 FBI 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
CONTINUED: Conduct another performance test or shut the FBI down. If the FBI cannot demonstrate compliance within 60 days of the report of initial exceedance, the FBI 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 FBI shutdown was required due to noncompliance as noted above, the Permittee may restart the FBI 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 FBI until the completion of the test, after which the FBI must be shut down. The FBI 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 addittional testing after further repair or operational changes. (NFE)	CONTINUED. Minn. Stat. 116.85, subd. 3
B.04. Operator Training	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Operator Training: The Permittee shall implement a training schedule to provide training to the FBI operators. Conduct initial training prior to Initial Startup. (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 FBI. (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 FBIs; C. procedures for feeding sludge and other materials; D. FBI start-up, shutdown, and malfunction procedures; E. procedures for maintaining proper combustion air levels; F. procedures for operating the FBI within the emission limits established in the permit; G. procedures for responding to periodic upset or off-specification conditions; H. procedures for monitoring FBI 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
Initial Performance Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup to measure particulate matter and opacity emissions. This timetable applies to each unit EU035 to EU037 individually.	40 CFR 60.8(a) regarding performance test timetable
Performance Test: due before end of each calendar year following Initial Startup 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 x 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 FBI every calendar year.	Minn. R. 7017.2020, subp. 1

Performance Test: due before end of each calendar year following Initial Startup 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 x 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 FBI 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 the initial performance test for particulate matter and opacity, the sludge rate monitor, wet scrubber pressure drop, oxygen monitor, FBI temperature monitor, and auxiliary fuel flow monitor required by 40 CFR 60.153(a)(1) through (b)(4) must be installed and 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
For the Initial Performance Test for opacity, opacity shall be measured by conducting observations in accordance with Reference Method 9, pursuant to the conditions described in 40 CFR 60.11(e)(1) through (3). The minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test. Include the results in the test report. This timetable applies to each unit EU035 to EU037 individually.	40 CFR 60.154(b)(6); 40 CFR 60.11(b); 40 CFR 60.11(e)
Record the continuous opacity monitoring data produced during the Initial Performance Test and furnish the commissioner a written report of the monitoring results along with Method 9 and Initial Performance Test results	40 CFR 60.11(e)(4)
C.03. Mercury testing	hdr
C.03.a. Mercury performance testing	hdr

Performance Test: due before end of each calendar quarter following Initial Startup 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 x 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 FBI 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
In the Performance Test Report for the first Performance Test (conducted before end of the first quarter following Initial Startup), include the level of mercury control achieved through use of the mercury additive. (NFE)	Minn. R. 7007.0800, subp. 16(J) regarding mercury control
Measure mercury emissions using Method 101A in 40 CFR 61, Appendix B.	40 CFR 61.53(d)(2)
During mercury performance testing, the minimum sample volume shall be 1.7 dscm and the minimum sample run time shall be one hour.	40 CFR 61.53(d)(4) regarding representative sampling
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

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 appoval 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 Initial Startup 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 x 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 incinerator 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 Initial Startup 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 x 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 FBI every two years.	CONTINUED Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each calendar year following Initial Startup 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

CONTINUED X = T / A x 100% A = most stringent Hydrogen Chloride emission limit in this permit T = Hydrogen Chloride 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 FBI every two years.	CONTINUED Minn. R. 7017.2020, subp. 1
Performance Test: due 180 days after Initial Startup to measure dioxins and furans, pursuant to Minn. R. 7017.2060, subp. 7, on at least one of the units EU035 to EU037. (NFE)	Minn. R. 7007.0800, subp. 2
D. MONITORING REQUIREMENTS	hdr
(see also Testing Requirements)	hdr
D.01. Requirement to install and operate	hdr
Monitors for oxygen, opacity, sludge charging rate, wet scrubber pressure drop, auxiliary fuel flow, FBI outlet temperature, and FBI bed temperature shall be installed and operational prior to conducting performance tests under 40 CFR Sec. 60.8.	40 CFR 60.13(b)
Install monitors for sludge charging rate, wet scrubber pressure drop, auxiliary fuel flow, FBI outlet temperature, and FBI bed temperature such that representative measurements of process parameters from the affected facility are obtained.	40 CFR 60.13(f) for monitors other than CEMS and COMS
Monitoring Data: Reduce all oxygen, sludge charging rate, wet scrubber pressure drop, auxiliary fuel flow, FBI outlet temperature, and FBI 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 - install and operate	hdr
Install, calibrate, maintain, and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the FBI. 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 - install and operate	hdr
Install, 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 60.153(b)(1) for the need to have a monitor
D.01.c. Oxygen CEMS - install and operate	hdr
Install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the FBI exhaust gas of each FBI. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the FBI 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 accurancy 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 - install and operate	hdr
Install, calibrate, maintain and operate temperature measuring devices in the bed of the FBI. 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
Install, calibrate, maintain and operate temperature measuring devices in the outlet of the FBI. 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 - install and operate	hdr

Install, calibrate, maintain, and operate a device for measuring the auxiliary fuel flow to each FBI. 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 - install and 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.	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 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 - install and operate	hdr
CEMS Installation: Install a carbon monoxide CEMS to measure emissions from each FBI 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 Certification Test: due 90 days after Quarterly Report (i.e., the first excess emissions report required for the CEMS) but not later than 30 days after the Initial Performance Test. 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. 1 regarding CEMS
COMS Certification Test: due 90 days after Quarterly Report (i.e., the first excess emissions report required for the COMS) but not later than 30 days after the Initial Performance Test. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B.	40 CFR 60.13(c) regarding COMS; 40 CFR 60.13(f) regarding COMS; Minn. R. 7017.1050, subp. 1 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 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 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 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.	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, FBI outlet temperature, and FBI 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 FBI bed temperature monitor operation	hdr
Except as allowed by this permit, the temperature monitoring devices at the FBI bed shall be operated continuously and data recorded during all periods of operation of the FBI.	40 CFR 60.153(b)(3) regarding continuous monitoring of the bed
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 FBI 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 FBI.	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 FBI 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 FBI operation for each FBI, 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 FBI exhaust gas (3) A record of the rate of sludge charged to each FBI, the measured temperatures of each FBI, the auxiliary fuel flow to each FBI, and the total solids and volatile solids content of the sludge charged to the FBI	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)
CONTINUED (i) For each FBI 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)
CONTINUED (ii) For each FBI 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)
CONTINUED. A record of average oxygen content in each FBI exhaust gas for each period of 1-hour duration or more that the oxygen content of the FBI 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 FBI 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)
CONTINUED. Scrubber pressure drop averaged over each 1-hour FBI operating period.	CONTINUED. 40 CFR 60.155(b)(1)
CONTINUED. Oxygen content in the FBI exhaust averaged over each 1-hour FBI operating period.	CONTINUED. 40 CFR 60.155(b)(2)
CONTINUED. Temperatures of the bed and outlet of FBIs averaged over each 1-hour FBI operating period.	CONTINUED. 40 CFR 60.155(b)(3)
CONTINUED. Rate of sludge charged to the FBI averaged over each 1-hour FBI operating period.	CONTINUED. 40 CFR 60.155(b)(4)
CONTINUED. FBI auxiliary fuel use averaged over each 8-hour FBI 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 FBI.	CONTINUED. 40 CFR 60.155(b)(6)
F.02. Initial notifications	hdr
Notification of the Date Construction Began: due 30 days after Start Of Construction (or reconstruction). Submit the name and number of each unit and the date construction of each unit began.	40 CFR 60.7(a)(1)
Notification of the Anticipated Date of Initial Startup: due 30 days before Anticipated Date of Initial Startup. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 61.09(a)(1)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup. This requirement applies to each unit EU035 to EU037 individually.	40 CFR 60.7(a)(3); 40 CFR 61.09(a)(2)
G. DEFINITIONS	hdr
FBI: 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 Incinerators 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
INITIAL STARTUP: For the Fluidized Bed Incinerators, initial startup occurs when sludge is first burned in the incinerator for any reason.	Minn. R. 7007.0800, subp. 2
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 incinerator outlet temperature, and fluidized bed incinerator 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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 007 Auxiliary Boilers**

Associated Items: EU 042 Auxiliary Boiler 3

EU 043 Auxiliary Boiler 4

SV 046

SV 047

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

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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, 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, 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
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 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: Distillate fuel oil limit (gallons) = 12-month sum [(8.82 * 2000) / (0.142 * %S)] 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	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. During the first 12 months of operation after start-up of either EU042 or EU043, the total heat input to both units shall not exceed the following cumulative totals: Month Steam Production 1 72.0 million lbs. 2 144.0 million lbs. 3 173.4 million lbs. 4 202.8 million lbs. 5 232.2 million lbs. 6 261.6 million lbs. 7 291.0 million lbs. 8 320.4 million lbs. 9 349.8 million lbs. 10 379.2 million lbs. 11 408.6 million lbs. 12 438.0 million lbs.	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. TESTING REQUIREMENTS	hdr
C.1. Opacity Testing	hdr
Performance Test: due 180 days after Initial Startup or within 60 days of achieving maximum capacity for opacity using Method 9. Opacity observations shall be conducted and reported, pursuant to the conditions described in 40 CFR 60.11(e)(1)-(3). This requirement applies to each unit individually	40 CFR 60.8(a); 40 CFR 60.45c(a); 40 CFR 60.11(b) regarding the method; 40 CFR 60.11(e)(1)-(3)
The minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test.	40 CFR 60.11(b) regarding minimum time
Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.	40 CFR 60.8(c) regarding nonrepresentative testing conditions

If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, 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
C.2. PM-10 Testing	hdr
Performance Test: due 180 days after Initial Startup or within 60 days of achieving maximum capacity for Particulate Matter < 10 micron. This requirement applies to each unit individually. Separate tests shall be conducted for distillate fuel oil and natural gas.	Title I Condition: State Implementation Plan for PM10; 40 CFR section 52.1230; 40 CFR pt. 52, subp.Y
C.3. NOx Testing	hdr
Performance Test: due 180 days after Initial Startup or within 60 days of achieving maximum capacity for Nitrogen Oxides. This is a one-time stack test to validate the appropriateness of the AP-42 emission factor of 0.12 lb per MMBtu heat input, using distillate fuel oil, for calculating potential to emit. This requirement applies to each unit individually.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
D. MONITORING REQUIREMENTS	hdr
SO2 Monitoring: Obtain fuel supplier certification to demonstrate compliance with SO2 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)
E. 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: Record the amount of each fuel combusted each month. These records could be in the form of fuel bills or meter readings.	40 CFR 60.48c(g)
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(I); 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)
F. REPORTING	hdr
F.1. Performance Test Reporting	hdr
Performance Test Report: Due 45 days after Performance Test	40 CFR 60.48c(b)
F.2. Periodic reports	hdr
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 SO2 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
F.3. Initial Notifications	hdr
Submit the following notifications. These notifications must include the design heat input capacity of the affected unit and identification of fuels to be combusted.	40 CFR 60.48c(a)
F.3.a. Notification of the Date Construction	hdr

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Notification of the Date Construction Began: due 30 days after Start Of Construction (or reconstruction). Submit the name and number of each unit and the date construction of each unit began. This requirement applies to each unit individually.	40 CFR 60.7(a)(1)
F.3.b. Notification of the Actual Date of Initial Startup	hdr
Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup. This requirement applies to each unit individually.	40 CFR 60.7(a)(3)
F.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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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

SV 043

SV 044

SV 045

What to do	Why to do it
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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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. During the first 12 months of operation after start-up of the alkaline stabilization system the total ID fan operating hours shall not exceed the following cumulative totals: Operating Month Hours 1 2,976 2 5,952 3 8,832 4 9,797 5 10,763 6 11,728 7 12,693 8 13,659 9 14,624 10 15,589 11 16,555 12 17,520	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
TESTING REQUIREMENTS	hdr
Performance Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup to measure Total Particulate Matter, PM-10, and hydrogen sulfide emissions. Applies to each stack/vent individually.	Minn. R. 7017.2020, subp. 1
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 009 FBI Dry Electrostatic Precipitators**

Associated Items: CE 028 Electrostatic Precipitator - High Efficiency

CE 031 Electrostatic Precipitator - High Efficiency

CE 034 Electrostatic Precipitator - High Efficiency

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
A.1. Operational limits	hdr
ESP Power Input: greater than or equal to 5.0 kilowatts, 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; Title 1 Condition: State Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding ESP O&M
Alternative ESP Power Input Operational Limit: If the Permittee wishes to propose an alternative ESP Power Input 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 ESP at all times that any process equipment controlled by the ESP is operating.	Minn. R. 7007.0800, subp. 16(J) regarding ESP O&M
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - an operating parameter is outside the required operating range; or - the ESP 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 ESP. The Permittee shall keep a record of the type and date of any corrective action taken for each ESP.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the ESP in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
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 ESP 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.	Minn. Stat. 116.07, subd. 4a
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Install, calibrate, maintain, and operate a measuring device to monitor primary and secondary voltage for each transformer/rectifier of each ESP. The measuring device shall be operated at all times that any process equipment controlled by the ESP is operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Install, calibrate, maintain, and operate a measuring device to monitor secondary current for each transformer/rectifier of each ESP. The measuring device shall be operated at all times that any process equipment controlled by the ESP is operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
Install, calibrate, maintain, and operate a measuring device to monitor sparking rate of each ESP. The measuring device shall be operated at all times that any process equipment controlled by the ESP is operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
Install, calibrate, maintain, and operate a measuring device to monitor the number of fields in operation for each ESP. The measuring device shall be operated at all times that any process equipment controlled by the ESP is operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
B.2. Monitor operation	hdr
Monitor and record the identity and minimum number of ESP sections (or specified collection area if sections are not equivalent) in service each day that the associated emission unit is operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
All monitors required by this subject item shall be installed and operational prior to Initial Startup of the FBI.	Minn. R. 7007.0800, subp. 4(D) regarding ESP 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.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping
The total power (P) input to the ESP is the sum of the products of the secondary voltage (V) and the current (I) in each field. P = (Va x Ia) + (Vb x Ib) + ...	Minn. R. 7007.0800, subp. 4(D) regarding ESP monitoring
B.4. QA/QC	hdr
During planned outages, confirm and record that the secondary voltage monitors, secondary current monitors, sparking rate monitors, and monitors for the number of fields in operation read zero when the control equipment is not operating.	Minn. R. 7007.0800, subp. 4 regarding ESP monitoring; Minn. R. 7007.0800, subp. 5 regarding ESP recordkeeping

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 010 FBI Venturi Scrubbers**

Associated Items: CE 029 Venturi Scrubber

CE 032 Venturi Scrubber

CE 035 Venturi Scrubber

What to do	Why to do it
(See also the Fluidized Bed Incinerator 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; 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
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.	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.	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.	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 install 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.	Minn. R. 7007.0800, subp. 4(D) regarding Venturi monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item, as well as all required Wet Scrubber monitors as described in the FBI subject item, shall be installed and operational prior to Initial Startup of the FBI.	Minn. R. 7007.0800, subp. 4(D) regarding Venturi monitoring
B.3. Data reduction	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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.	Minn. R. 7007.0800, subp. 4 regarding Venturi monitoring; Minn. R. 7007.0800, subp. 5 regarding Venturi recordkeeping
B.4. QA/QC	hdr
Once a month, compare the the pressure monitor with a U-tube manometer.	Minn. R. 7007.0800, subp. 16(J) regarding Venturi O&M

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 011 FBI 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; Title 1 Condition: State Implementation Plan for PM10; 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.	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.	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).	Minn. R. 7007.0800, subp. 16(J) regarding WESP 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.	Minn. Stat. 116.07, subd. 4a
B. MONITORING REQUIREMENTS	hdr
B.1. Requirement to have a monitor	hdr
Install, 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.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Install, 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.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Install, calibrate, maintain, and operate a measuring device to monitor sparking rate of each WESP. 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
Install, 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.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
Install, 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
Install, 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. Monitor operation	hdr
All monitors required by this subject item shall be installed and operational prior to Initial Startup of the FBI.	Minn. R. 7007.0800, subp. 4(D) regarding WESP monitoring
B.3. 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.	Minn. R. 7007.0800, subp. 4 regarding WESP monitoring; Minn. R. 7007.0800, subp. 5 regarding WESP recordkeeping
B.4. 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 accecptance criteria is plus-or-minus 4 degrees F.	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 three weeks. Record the results.	Minn. R. 7007.0800, subp. 16(J) regarding voltmeter maintenance

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 012 Sand, Carbon, and Salt Baghouses**

Associated Items: CE 045 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 046 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 047 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 , 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 1 Condition: State Implementation Plan for PM10; 40 CFR 52.1230 & Subp. Y; Minn. R. 7007.0800, subp. 16(J) regarding fabric filter 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 and maintain 99.9 percent removal efficiency. Applies to each control device individually.	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.	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.	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).	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.	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.	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.	Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item shall be installed and operational prior to initial startup of the emission unit.	Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring
B.3. Data reduction	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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.	Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring; Minn. R. 7007.0800, subp. 5 regardingfabric filter 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.	Minn. R. 7007.0800, subp. 16(J)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **GP 013 Alkaline Stabilization and Ash Baghouses**

Associated Items: CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

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

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
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 , 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; Title 1 Condition: State Implementation Plan for PM10; 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.	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.	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.	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).	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.	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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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.	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.	Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring
B.2. Monitor operation	hdr
All monitors required by this subject item shall be installed and operational prior to initial startup of the emission unit.	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.	Minn. R. 7007.0800, subp. 4 regarding fabric filter monitoring; Minn. R. 7007.0800, subp. 5 regardingfabric filter 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.	Minn. R. 7007.0800, subp. 16(J)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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
Stage 1 pH: greater than or equal to 2.0 and less than or equal to 7.0, 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
Stage 2 pH: greater than or equal to 8.0 and less than or equal to 12.5, 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; Minn. R. 7007.0800, subp. 16(J) regarding Three-stage Odor Scrubber O&M
Stage 3 pH: greater than or equal to 8.0 and less than or equal to 12.5, 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; 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 alternatives 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
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 installed and operational prior to initial startup of 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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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 Incinerator is operating, the Permittee shall record all times when the process equipment emissions are not vented through an operating Fluidized Bed Incinerator (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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 026 Paint Booth**

Associated Items: CE 025 Mat or Panel Filter

SV 031

What to do	Why to do it
A. EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.0974 grains/dry standard cubic foot of exhaust gas.	Minn. R. 7011.0715, subp. 1A
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1 B
HAPs - Total: less than or equal to 1.0 tons/year using 12-month Rolling Sum	Title I Condition: Limit to avoid classification as a major source under 40 CFR 63.2
B. RECORDKEEPING	hdr
Recordkeeping: Check and record filter operation and maintenance items daily when paint booth is in operation	Minn. R 7007.0800, subp. 4(B)
Recordkeeping: Maintain a record of type and quantity of paint and thinner/cleanup solvent used, HAP content and density of subject materials, control/destruction efficiency (if applicable), and a monthly calculation of actual HAP emissions expressed as a 12-month rolling sum	Minn. R 7007.0800, subp. 4(B) and 5(C)
C. POLLUTION PREVENTION PLAN	hdr
Failure to meet the goals of the Pollution Prevention Plan will not result in enforcement action. At such time as the permittee no longer uses toxic chemicals in the paint booth facility, the Pollution Prevention reporting requirement of this Permit becomes null and void. Utilization of toxic chemicals at some future time will result in re-imposition of the requirement for Pollution Prevention Planning and Progress Reporting. (NFE)	Minn. R. 7007.0800, subp. 2
C.1. Submittal requirements	hdr
Submittal: due 180 days after Permit Issuance, and with each subsequent permit application, as long as permittee is utilizing toxic chemicals in painting processes, the Permittee shall submit a pollution prevention plan for each toxic chemical used in the paint booth. The toxic pollution prevention plan must establish a program identifying the specific technically and economically practicable steps that could be taken during the life of the permit, to eliminate or reduce the generation or release of toxic pollutants reported by the facility. (NFE)	Minn. R. 7007.0800, subp. 2
Submittal: due before end of each year following Permit Issuance. The Permittee shall submit an annual progress report to the commissioner. Progress reports are due annually on the anniversary of permit issuance. (NFE)	Minn. R. 7007.0800, subp. 2
C.2. Plan content. At a minimum, the plan must include:	hdr
(1) a policy statement articulating upper management support for eliminating or reducing the release of toxic pollutants at the paint booth (NFE);	Minn. R. 7007.0800, subp. 2
(2) a description of the specific processes releasing toxic pollutants that specifically describes the types, sources, and quantities of toxic pollutants currently being released by the facility (NFE);	Minn. R. 7007.0800, subp. 2
(3) a description of the current and past practices used to eliminate or reduce the release of toxic pollutants at the facility and an evaluation of the effectiveness of these practices (NFE);	Minn. R. 7007.0800, subp. 2
(4) an assessment of technically and economically practicable options available to eliminate or reduce the release of toxic pollutants at the facility, including options such as changing the raw materials, operating techniques, equipment and technology, personnel training, and other practices used at the facility. The assessment may include a cost benefit analysis of the available options (NFE);	Minn. R. 7007.0800, subp. 2
(5) a statement of objectives based on the assessment in clause (4) and a schedule for achieving those objectives. Wherever technically and economically practicable, the objectives for eliminating or reducing the generation of each toxic pollutant at the facility must be expressed in numeric terms based on a specified base year that is the date of Pollution prevention plan inception. (NFE)	Minn. R. 7007.0800, subp. 2
(6) an explanation of the rationale for each objective established for the facility; (NFE)	Minn. R. 7007.0800, subp. 2
(7) a listing of options that were considered not to be economically and technically practicable (NFE); and	Minn. R. 7007.0800, subp. 2
(8) a certification, signed and dated by the facility manager and an officer of the MCES attesting to the accuracy of the information in the plan. (NFE)	Minn. R. 7007.0800, subp. 2
C.3. Progress report content. At a minimum, each progress report must include:	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

(1) a summary of each reduction objective established in the plan, including the base year and amount released, and the schedule for meeting each objective (NFE);	Minn. R. 7007.0800, subp. 2
(2) a summary of progress made during the past year, if any, toward meeting each objective established in the plan including the quantity of each toxic pollutant eliminated or reduced (NFE);	Minn. R. 7007.0800, subp. 2
(3) a statement of the methods through which elimination or reduction has been achieved (NFE);	Minn. R. 7007.0800, subp. 2
(4) if necessary, an explanation of the reasons objectives were not achieved during the previous year, including identification of any technological, economic, or other impediments the facility faced in its efforts to achieve its objectives (NFE); and	Minn. R. 7007.0800, subp. 2
(5) a certification, signed and dated by the facility manager and an officer of the MCES, to the accuracy of the information in the progress report. (NFE)	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 034 Ash Loadout Housekeeping Vacuum**

Associated Items: CE 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 033

SV 034

SV 035

SV 036

SV 037

SV 038

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	Recordkeeping for limit to avoid classification as a major source under 40 CFR 63.2

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 044 Generator 7**

Associated Items: SV 048

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity using 6-minute Average once operating temperatures have been attained.	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 0.05 percent by weight.	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: Limit taken to avoid classification as a major modification under 40 CFR 52.21
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 complies with the definition of distillate oil.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21
The emission unit shall be operated only as an Emergency Internal Combustion Engine. Emergency Internal Combustion Engine (E-ICE) means an internal combustion engine which only operates when no other power source is available to meet life safety requirements and for necessary routine periodic testing. Life safety requirements are circumstances that demand power to avoid death, illness, injury, or damage to process equipment or product. An E-ICE is a power source that may be used to generate electricity, pump water or other liquids, or other application. An E-ICE does not include internal combustion engine electric generators operated by an electric service provider to produce electric power for sale, or operated by an electric customer during periods of intentional electric service disruption by the electric service provider.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y
Record the date of use for the Emergency Internal Combustion Engine, the length of time the Emergency Internal Combustion Engine was used, and the reason for using the Emergency Internal Combustion Engine.	Title I Condition: State Implementation Plan for PM10; 40 CFR 52.1230; 40 CFR pt. 52, subp.Y

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 045 Sand Truck Unloading**

Associated Items: CE 045 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 049

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A)
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21;
CONTINUED ("Why to do it" continued from above)	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
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 046 Carbon Truck Unloading**

Associated Items: CE 046 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 050

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A)
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21;
CONTINUED ("Why to do it" continued from above)	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
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **EU 047 Salt Truck Unloading**

Associated Items: CE 047 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 051

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21; Minn. R. 7011.0715, subp. 1(A)
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR 52.21;
CONTINUED ("Why to do it" continued from above)	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
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **CE 048 Other**

Associated Items: EU 035 Fluidized Bed Sewage Sludge Incinerator 1

GP 006 Fluidized Bed Incinerators (EU035, EU036, EU037)

What to do	Why to do it
MERCURY CONTROL EQUIPMENT FOR FLUIDIZED BED INCINERATOR	hdr
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
Install, 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
Install, calibrate, maintain 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
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
RECORDKEEPING	hdr
Record the time periods, reasons, and corrective actions regarding the loss of mercury additive flow. (NFE)	Minn. Stat. 116.07, subd. 4a
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
Report: due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	Minn. Stat. 116.07, subd. 4a
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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **CE 049 Other**

Associated Items: EU 036 Fluidized Bed Sewage Sludge Incinerator 2

GP 006 Fluidized Bed Incinerators (EU035, EU036, EU037)

What to do	Why to do it
MERCURY CONTROL EQUIPMENT FOR FLUIDIZED BED INCINERATOR	hdr
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
Install, 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
Install, calibrate, maintain 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
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
RECORDKEEPING	hdr
Record the time periods, reasons, and corrective actions regarding the loss of mercury additive flow. (NFE)	Minn. Stat. 116.07, subd. 4a
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
Report: due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	Minn. Stat. 116.07, subd. 4a
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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **CE 050 Other**

Associated Items: EU 037 Fluidized Bed Sewage Sludge Incinerator 3

GP 006 Fluidized Bed Incinerators (EU035, EU036, EU037)

What to do	Why to do it
MERCURY CONTROL EQUIPMENT FOR FLUIDIZED BED INCINERATOR	hdr
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
Install, 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
Install, calibrate, maintain 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
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
RECORDKEEPING	hdr
Record the time periods, reasons, and corrective actions regarding the loss of mercury additive flow. (NFE)	Minn. Stat. 116.07, subd. 4a
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
Report: due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	Minn. Stat. 116.07, subd. 4a
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

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Subject Item: **CE 051 Other**

Associated Items: EU 002 Bar Screens-East

EU 004 Grit Chambers-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 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 install, 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

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

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.

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 any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:
- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

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

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit. Include any required pollution prevention plans. Include an updated Fugitive Control Plan that reflects all operations current at the time of the application submittal due date.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. This requirement applies to each unit EU035 to EU037 individually.	GP006
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. This requirement applies to each unit individually.	GP007
Notification of the Anticipated Date of Initial Startup	due 30 days before Anticipated Date of Initial Startup. This requirement applies to each unit EU035 to EU037 individually.	GP006
Notification of the Date Construction Began	due 30 days after Start Of Construction (or reconstruction). Submit the name and number of each unit and the date construction of each unit began. This requirement applies to each unit individually.	GP007
Notification of the Date Construction Began	due 30 days after Start Of Construction (or reconstruction). Submit the name and number of each unit and the date construction of each unit began.	GP006
Notification of the date of Equipment Removal/Dismantlement	due 15 days after Equipment Removal and/or Dismantlement. Submit the name and number of each unit and the date the unit was removed and/or dismantled.	Total Facility
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.	Total Facility
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.	Total Facility
Request for Information Response	due 1,096 days after Permit Issuance. Submit modeling data as specified in MPCA guidance for Modeling Information Requests for NOx. This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

Testing Frequency Plan	due 60 days after Initial Performance Test for Total Particulate Matter and PM-10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP004
Testing Frequency Plan	due 60 days after Initial Performance Test for Total Particulate Matter, PM-10, and hydrogen sulfide emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP008

TABLE B: RECURRENT SUBMITTALS

11/15/02

Facility Name: Metropolitan Wastewater Treatment Plant

Permit Number: 12300053 - 002

What to send	When to send	Portion of Facility Affected
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
Report	due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	CE048
Report	due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	CE049
Report	due 30 days after end of each calendar quarter following Initial Startup all 8-Hour Block Average mercury additive feedrates and 8-Hour Block Average temperatures. (NFE)	CE050
Report	due before end of each calendar half-year following Initial Startup of any FBI. (The report shall contain the monthly mercury sample analysis of the mixed sludge charged to the FBIs and the quarterly plant influent sample analysis). (NFE)	GP006
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. The report shall also contain all instances of Trigger Level exceedances and corrective actions taken.	Total Facility
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.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA Regional Office in Chicago. The report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner	Total Facility

APPENDIX MATERIAL
Facility Name: MCES Metropolitan WWTP - St Paul
Permit Number: 12300053-002

Appendix I Listed Insignificant Activities (Associated with the Modification) with Minnesota Rules

Appendix II Tier 1, 2, and 3 Procedures

Appendix III Modeled PM-10 Stacks/Vents

Appendix IV Exhibit M - Ambient Air Monitoring Procedures For Determination Of Compliance

APPENDIX I

Listed Insignificant Activities (Associated with the Modification)

ASH HANDLING

IA001	Dry ESP Transporter
IA002	Waste Heat Boiler Transporter
IA003	Surge Hopper
IA004	Main Ash Transport
IA005	Ash Loadout Surge Hoppers
IA006	Ash Storage Silos

ALKALINE STABILIZATION

IA007	Quicklime Truck Unload To Storage Silos
IA008	Coal Ash Truck Unload To Storage Silos
IA009	Coal Ash Day Silos
IA010	Quicklime Day Silos

Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
3(A)	Fuel use: space heaters fueled by, kerosene, natural gas, or propane.	Minn. R. 7011.0510/0515
3(B)	Furnaces, boilers, and incinerators:	
	1. infrared electric ovens; and	Minn. R. 7011.0105/0110
	2. fuel burning equipment with a capacity less than 500,000 Btu/hour but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 500,000 Btu per hour is less than or equal to 2,000,000 Btu/hour.	Minn. R. 7011.0510/0515 *OR* Minn. R. 7011.0610 + Minn. R. 7011.1215, subp. 3
3(C)	Fabrication operations: equipment used exclusively for forging, pressing, drawing, spinning, or extruding hot metals.	Minn. R. 7011.0710/0715
3(D)	Processing operations:	
	1. open tumblers with a batch capacity of 1,000 pounds or less; and	Minn. R. 7011.0710/0715
	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 *OR* Minn. R. 7011.1505, subp. 2(B)/1505, subp. 3(B) *OR* Minn. R. 7011.0105/0110 *(if not associated with industrial process per the IPE definition)*
	2. non-hazardous air pollutant VOC storage tanks with a combined total tankage capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 degrees Fahrenheit.	Minn. R. 7011.0710/0715 *OR* Minn. R. 7011.1505, subp. 2(B)/1505, subp. 3 (B) OR Minn. R. 7011.0105/0110 *(if not associated with industrial process per*

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
		the IPE definition)
3(F)	Cleaning operations: commercial laundries, not including dry cleaners and industrial launderers.	Minn. R. 7011.0105/0110 *(seems by definition to not be industrial process equipment)*
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:	
	1. total usage of less than 200 gallons of VOC (including hazardous air pollutant-containing VOC) combined in any consecutive 12 months period at a stationary source;	Minn. R. 7011.0710/0715 *OR* Minn. R. 7011.0105/0110
	2. equipment used exclusively for packaging lubricants or grease;	Minn. R. 7011.0710/0715 OR Minn. R. 7011.0105/0110
	3. equipment used for hydraulic or hydrostatic testing;	Minn. R. 7011.0710/0715
	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
	6. equipment used exclusively for melting or application of wax;	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
	7. nonasbestos equipment used exclusively for bonding lining to brake shoes; and	Minn. R. 7011.0710/0715
	8. cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners.	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
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.	Minn. R. 7011.0710/0715
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.	Minn. R. 7011.0710/0715

APPENDIX II

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.

   Annual Emissions = M_s (DT/yr) x measured emissions(lb/DT) x (ton/2000 lb)

3. Demonstrate compliance by showing that

   Annual Emissions $\leq$ 5.14 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:

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

6. Demonstrate compliance by showing that

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

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 III

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
SV3941	SV3941	FBIs	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

Appendix IV

Revision 4/01

EXHIBIT M

AMBIENT AIR MONITORING PROCEDURES
For
DETERMINATION OF COMPLIANCE

1. General

   This exhibit shall apply to all emission facilities that are required to perform ambient air monitoring in order to demonstrate compliance of State and Federal ambient air quality standards or permit conditions, unless otherwise stated by special conditions of the permit.

2. Network design for criteria and non-criteria pollutants

   All air monitoring networks intending to demonstrate attainment with State and Federal ambient air quality standards must comply with the requirements in the Code of Federal Regulations Title 40 Part 58.14. Location, number of monitors, parameters and duration of the study shall be determined through the permit process.

3. Probe and Siting Criteria

   Probe siting and placement for criteria pollutants must comply with specifications described in the Code of Federal Regulations Title 40 Part 58 Appendix E. Each monitoring site must have a site and monitor information form completed prior to submission of data (see attached appendix).

   Probe siting for non-criteria pollutants must meet requirements prescribed in the approved method for the target parameter (see paragraph 4., Monitoring Methods).

4. Monitoring Methods

   All criteria pollutants must be measured by U.S. Environmental Protection Agency (EPA) reference or equivalent methods, approved in accordance to Title 40 Part 58 Appendix C of the Federal Code of Regulations.

A list of "Designated Reference and Equivalent Methods" and "Acceptable Methods for Non criteria Pollutants" may be obtained by writing to :

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
ATMOSPHERIC RESEARCH AND EXPOSURE ASSESSMENT
LABORATORY QUALITY ASSURANCE DIVISION (MD-77)
RESEARCH TRIANGLE PARK, NC 27711

The MPCA must be informed of any method change performed during the monitoring project. The method change must be reported within 45 working days from the end the reporting quarter in which the change took place.

Non criteria pollutants must be measured by methods approved by the U.S. EPA. If no method exists, MPCA will suggest candidate methods recommended by the U.S. EPA or other methodology.

5. Monitoring Plan / Quality Assurance Project Plan

Permittee or operator must submit a monitoring plan that incorporates a quality assurance plan to the MPCA; Environmental Outcomes Division, Air Monitoring Unit, Supervisor at least 30 days prior the start date of the air monitoring project. The Agency shall review the monitoring and quality assurance plans to ensure compliance with EPA requirements of monitoring networks and determine whether adequate quality control measures are utilized to ensure acceptable levels of quality data.

A) Elements of Monitoring plan / Quality Assurance Project Plan

The primary guidance for developing a quality assurance plan is specified in the Code of Federal Regulations 40 Part 58 Appendix A.

In general, the following elements must be addressed in a monitoring plan.

1. General description of monitors and monitor location.
2. Description of calibration methods and reference standards.
3. Sampling schedule for manual methods.
4. Summary of standard operating procedures.
5. Description of routine quality control checks, including frequency.
6. Control limits for zero, span and other control checks including audits
7. Performance audit procedures and reference standard traceability.
8. Plan of action when monitors fail to meet control/audit limits.
9. Recording and validating data.
10. Format of data submission.

B) Audits

In addition to the quality assurance program developed by the permittee, the MPCA will conduct performance and systems audits on all criteria pollutant monitors. A similar audit format will be designed for non-criteria pollutants dependent upon pollutant parameters. Frequency of scheduled MPCA audits is determined by the permit process.

5. Data Submittal

All permittees required to submit data to the agency must do so no later than 45 working days past the end of each calendar quarter. Monitoring site information, monitoring data and quality control results must be compliant with submission requirements of the MPCA "Ambient Air Quality Data Submission Standard." (Appendix A of this document) All data shall be submitted to the following address:

Minnesota Pollution Control Agency
Environmental Outcomes Division
Compliance Section-Supervisor
520 Lafayette Road
St. Paul, MN 55155-4194

A) Criteria Pollutants

The permittee shall include the following data assessment information (as per CFR Title 40 Part. 58 App. A.) for each sampling quarter.

1. For automated analyzers -- precision probability limits from section 4.1 and percentage differences from section 4.2 of CFR 40 Part 58 App. A, section 5.1.2

2. For manual methods - precision probability limits from section 5.1 and percentage differences from section 5.2 and 5.3 of CFR 40 Part 58 App. A, section 5.3.2

3. All data used to calculate the reported estimates of precision and accuracy including span checks, reference standard certifications, collocated sampler and audit results must be made available to the MPCA upon request.

B) Non criteria Pollutants

Data collected for non-criteria pollutants must be accompanied by any pertinent quality control information obtained during the reporting quarter. This would include the following information, where applicable:

1. Sampling train flow rate checks.
2. Field blank data.
3. Analytical blank data.
4. Spiked sample percent recoveries.
5. Calibration check standard results.
6. Internal audit results.
7. Sample Duplicate results

Any documentation deemed necessary to assess reported data including, laboratory and field logbooks, mass spectra data, strip charts and calibration data must be made available to the MPCA upon request.

C) Data Validation

The requirement for data recovery is 75 percent of all data possible from each sampling quarter for automated and manual methods. Minimum recovery for the meteorological parameters of wind speed and wind direction is 80 percent from each sampling quarter.

Data that is determined to be invalid must be deleted from the reported database. The reasons for invalidation of data must be reported to the MPCA. There should not be any correlation between missing data periods and expected highest concentrations.

Appendix A

Ambient Air Quality Data Submission Standard

The Environmental Outcomes Division (EOD) of the Minnesota Pollution Control Agency, collects large amounts of ambient air quality data in order to assess the quality of the air in the state and to determine compliance with both the National Ambient Air Quality Standards (NAAQS) and the Minnesota Ambient Air Quality Standards (MNAAQS). The ambient air quality data is collected from a network of air monitoring stations maintained by the EOD and from networks required of some regulated industries.

Section I.
The Minnesota Air Quality Laboratory Information Management System

The Minnesota Air Quality Laboratory Information Management System (MAQLIMS) is a computerized data handling system that accepts, stores, and reports on information relating to ambient air quality data. The purpose of the MAQLIMS is to compile and organize air monitoring data from all air monitoring networks within the state, into a useful format acceptable to the U.S. EPA. To facilitate this, all information submitted to MAQLIMS must be in a standardized format. Special input formats and a system of codes has been adopted to ensure standardization and ease of data submission on the part of any contributing organization. In addition, a number of edit checks have been instituted to screen all data being submitted to the system.

This document specifies the media, file types, data coding formats, and procedures for submitting information related to ambient air quality data to the MPCA. Section II addresses sampling site information, section III addresses air quality data, section IV addresses precision and accuracy data, and section V gives some general information.

There are three distinct classes of information that are accommodated in MAQLIMS: sampling site information, ambient air quality data, and precision and accuracy information. These are described below.

Site information: Site information includes detailed descriptive information about the location and environment of the sampling site and the parameters monitored. This includes the State, county, and city wherein the site is located, the latitude and longitude, or UTM coordinates, of the site and its elevation above local terrain and mean sea level. It also includes a description of the site location (center city, suburban, rural, or remote), the dominating influence on the sampler within approximately a 1-mile radius of the sampling site (industrial, residential, commercial, or mobile), and much more.

Ambient air quality data: That information which must be supplied to MAQLIMS in order to completely characterize the air quality at a site over a specified time interval. This includes the location of the sampling site, the pollutants that are monitored at that site, the methods of collection and analysis of each pollutant monitored, the magnitude of each pollutant concentration, and the time interval over which the measurements are made.

Precision and Accuracy data: That information which must be supplied to MAQLIMS in order to determine the precision and accuracy of collection and analysis methods employed in obtaining ambient air quality data. This includes the raw data from bi-monthly precision checks and from quarterly audits.

Site information is submitted only once for each location, although it must be updated whenever the site environment changes. Air quality data are supplied continuously to the EOD by its own network of monitors and periodically by the air quality networks of some regulated industries. Precision and accuracy data are submitted each calendar quarter.

Section II.
Sampling Site Information

Before any *air quality* data from a monitor can be submitted to MAQLIMS, site and monitor information for the monitor must be supplied to the EOD ambient air quality database manager. After the database manager has received the necessary site and monitor information, an *identity* will be assigned to the monitor. This monitor identity must be used to submit the air quality data from the monitor.

Whenever the site or monitor information changes, the database manager must be notified of the changes.

A. Site Information

The information required for establishing a new site is listed in Table 1. This information must be submitted to the air monitoring database coordinator, whenever a new site is to be established.

The information listed in Table 2 is optional. This information is requested to help prevent the misinterpretation of any ambient air quality data that is obtained by a monitor.

The date of the last air sample collected by a monitor must be provided when a monitor is removed from a site. This date must be sent to the air monitoring database coordinator, whenever a site is terminated. All monitors which ever existed at the site must have the date sampling ended before or on the date the site is terminated.

B. Monitor Information

The information required to add additional monitors to a site is listed in Table 3. This information must be sent to the EOD ambient air quality database coordinator, whenever a monitor is added to a site. In addition, the information listed in Table 4 is required when a particulate matter (PM10 or TSP) sampler is added to the site.

The information listed in Table 5 is optional. This information is requested to help prevent the misinterpretation of any ambient air quality data that is obtained by a monitor.

The date of the last air quality sample collected by a monitor must be provided when a monitor is removed from a site. This date must be sent to the database manager whenever a monitor is removed.

C. Data submission

Forms are provided on page 9-12 for submitting site and monitor information. Optionally, *changes to site* or monitor information may be submitted as AIRS formatted transactions along with *air quality data* or *precision and accuracy data.* Please follow the gridlines in section III or IV when submitting site or monitor information as AIRS formatted transactions.

Section III.
Air Quality Data

The technical specifications for acceptable submission of air quality data are as follows:

1. Medium: 3.5" IBM DOS formatted double-sided (DS); double-sided, double-density (DS, DD); or double-sided, high-density (DS,HD) diskette, or e-mail files to David.Kelso@pca.state.mn.us

2. Dataset file type: Card Image Formatted file. A Card Image Formatted file is an ASCII text file in which records are 80 characters in length and end with a carriage return and a line feed. Fields are not delimited.

3. Data coding format: Aerometric Information Retrieval System (AIRS) formatted transactions. A transaction is a card Image Format Record.

The submission of a test file must be completed prior to submission of actual data. For assistance in completion of a test file, contact David Kelso, ambient air quality database coordinator.

Section IV.
General

All submitted data must adhere to this standard unless; the Environmental Outcomes Division of the MPCA approves an alternative. Failure to comply with this standard will result in the rejection of the submitted data and possible violation of any agreements requiring the submission of ambient monitoring data.

The structure of AIRS formatted transactions can be found in the AIRS User's Guide. Information necessary of creating AIRS formatted transactions can be found in volumes AQ2 & AQ3. The AIRS User's Guide can be downloaded via the internet from TTNWeb/AIRS site at www.epa.gov/ttn/airs/airsmans.html#aqs .

All data should be submitted to:

Minnesota Pollution Control Agency
Environmental Outcomes Division
Compliance Section-Supervisor
520 Lafayette Road
St. Paul, MN 55155-4194

Any Questions concerning this standard should be directed to:

Minnesota Pollution Control Agency
Environmental Outcomes Division
Environmental Monitoring and Analysis Section
Ambient Air Quality Database Manager
520 Lafayette Road
St. Paul, MN 55155-4194

Information Requirements

The following tables define the required fields of the attached forms.

Table 1. Required site information	
date site established	Date on which a monitoring site began collecting air quality data.
supporting agency	Name of agency, company or organization that is responsible for the operation of the monitoring site.
site name and/or site identification number	Name and/or identification number used by the supporting agency.
site address	Street number, street name, city and zip code of the monitoring site.
state	Name of state where the site is located.
county	Name of county where the site is located.
city	Name of city where the site is located, or none.
location data	Either longitude and latitude, or Universal Transverse Mercator (UTM) System coordinates. Include method used to determine coordinates and an estimate of the accuracy of the location data.
land use	Identifies the prevalent land use within 1.4 mile of the site. (residential, commercial, industrial, agricultural, forest, desert, mobile, or blighted area)
street information	Street/highway name of any streets/highways close enough to have a significant impact on the site, up to 3 streets may be listed
	Type: Arterial, Expressway, Freeway, Major Street or Highway, Through Street or Highway, Local Street or Highway
	Distance from monitor to street in meters
	Direction from site to street
	The annual average daily traffic (ADT)
location setting	Type of environment in which the site is located. (urban, suburban or rural)
meteorological data	Is met data collected for this site?
	If so, is it collected at this location or at a different location?

	If it is collected at a different location, what is the location: how far is it from this site and in what direction?

Table 2. Optional site information:	
compass sector	True (as opposed to magnetic) direction of the site from the central business district or monitored source.
elevation MSL	Elevation in meters above Mean Sea Level of the site
distance to city	Distance in kilometers of the site from the center of the downtown central business district in which the site is located, or the monitored source.
description	Textual description of the location of the site.
comments	Any other useful information.

Table 3. Required monitor information:	
parameter	Name of parameter monitored by this monitor (e.g. carbon monoxide, lead, pm-10, hydrogen sulfide, etc.)
poc	Parameter occurrence code: 1 for regular monitor, 2 or greater for co-located monitors.
Analyzer manufacturer and model and/or AIRS method code	The 3 digit code assigned to a particular analysis and collection method by the EPA usually associated with an analyzer make and model type.
analyzing lab	Name of laboratory responsible for analysis of air quality measurement samples.
collection lab	Name of laboratory responsible for collection of air quality measurement samples.
date sampling began	Date on which air quality samples were first collected by the monitor.
probe height	Height of sampling probe from ground in meters
project class	Designates the type of sampling (population-oriented, source-oriented, background, special studies, duplicate sampling, complaint investigation etc.).
dominant source	Indicates the primary source of the pollutant being monitored (point, area, mobile)
measurement scale	Denotes the geographic scope of the measurements of air quality data made by this monitor. (see CFR 40 pt. 58, App. D for a discussion of measurement scales for each criteria pollutant)

monitoring objective	Primary reason for measuring air quality data at this monitor (maximum concentration, population-exposure, background, source-oriented; see CFR 40 pt. 58, App. D for more discussion of monitoring objective in relation to measurement scale).

Table 4. Required particulate monitor information (for PM-10 or TSP only):	
sampling frequency	Frequency of 24-hour samples (daily, every other day, every sixth day, etc.)

Table 5. Optional monitor information:	
probe air flow	Is the probe air flow restricted?
obstructions	Direction and distance of any obstructions from probe.
obstruction type	Type of each obstruction listed: buildings, trees/brush, ridges, cliffs, structure other than building, etc.
comments	Any other useful information.

FINAL TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 12300053-002
METROPOLITAN COUNCIL
METROPOLITAN WASTEWATER TREATMENT PLANT

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number	Facility Address (SIC Code: 4952)
Metropolitan Council Environmental Services 230 East Fifth Street St. Paul, Minnesota 55101-1633 (651) 602-1162	 Metropolitan Wastewater Treatment Plant 2400 Childs Road St. Paul Ramsey County

1.2. Description of the Facility

The Metropolitan Wastewater Treatment Plant is an advanced secondary wastewater treatment facility with a nominal design capacity of 250 million gallons per day. The plant is located on the east bank of the Mississippi River at mile 836, just east of downtown St. Paul. It is the principal sewage treatment facility for the Minneapolis and St. Paul metropolitan area serving more than 80 percent of the area's sewered population, as well as commercial, institutional, and industrial wastewater generators. Solids removed in the wastewater treatment process are managed through incineration, which is the primary source of air emissions from the facility. In addition, small amounts of scum from the treatment process and activated carbon from odor control systems are also incinerated. Emissions also result from operation of heating boilers, emergency generators, ash and materials handling, spray painting for maintenance, and aeration of the wastewater in the treatment process.

1.3. Description of the Activities Allowed by this Permit Action

This permit amendment authorizes construction and operation of a new Solids Processing Facility composed of three fluidized bed sewage sludge incinerators, an alkaline stabilization system, and ancillary materials handling systems for the incinerators and stabilization system (sand, carbon, and salt unloading, and ash/alkaline materials handling). The facility will also include two auxiliary boilers and an additional emergency back-up diesel-driven electric generator.

The new Solids Processing Facility will replace the multiple hearth incinerators and associated equipment, and will eliminate the emergency relief stacks as required by Civil Action No. 99-CV-1105 (Consent Decree). The Zimpro thermal conditioning process and the rotating biological surfaces will be decommissioned. Their removal will represent a substantial decrease in odor generation. The two existing auxiliary boilers will also be decommissioned.

As expressed in the permit application, the facility intends to use incineration as the primary method for processing the solids. The facility will use alkaline stabilization, as needed, during periods when an incinerator is shut down for maintenance and when the plant reaches periods of peak loading. This and the existing facility are further described in Air Emissions Permit No. 12300053-001.

The permit as written contains only the equipment that will remain after all modifications are completed. For ongoing operation of the existing units that will eventually be retired, the permit references the conditions in the Title V permit issued in 2001.

1.4. Facility Emissions:

Table 1. New Source Review Emission Changes Associated With the Modification

This table shows facility emission increases and decreases for the pollutants subject to the federal New Source Review program. Emission changes have been calculated consistent with the regulations.

Pollutant	Emission Increases Authorized with this Permit Action (TPY)	Emission Decreases Authorized with this Permit Action (TPY)	** Other contem-poraneous emission increases/ decreases (TPY)	* Net Emission Change (TPY)	NSR Threshold Level (TPY)	NSR (Yes or No)
PM	51.49	-29.39	na	22.1	25	No
PM10	42.69	-31.75	na	10.94	15	No
SO_2	46.02	-9.92	na	36.1	40	No
NOx	243.54	-367.81	na	-124.27	40	No
VOC	32.82	-1.86	na	30.96	40	No
CO	144.99	-812.68	na	-667.69	100	No
Lead	0.56	-0.06	na	0.5	0.6	No
H_2S	1.59	-0.40	na	1.19	10	No
TRS	2.57	-0.40	na	2.17	10	No
H_2SO_4	6.90	-14.16	na	-7.26	7	No

* Emission increases allowed with the permit action include additions and subtractions associated with netting. Netting has been performed using actual emissions, not potential to emit, from the modification as appropriate.

**Other emission changes during the contemporaneous period as defined by 40 CFR 52.21, 40 CFR 52.24 or 40 CFR 51

Table 2. Potential Emissions Associated with the Modification

This table shows the change in potential emissions resulting from the permitted changes. Because New Source Review does not apply (as shown in Table 1), the changes in emissions have been calculated based on Potential to Emit, using existing and new permit limits in the calculations as applicable.

Pollutant	Potential to Emit increases from the modification (TPY)	Potential to Emit decreases from retired units (TPY)	Net Potential to Emit Change (TPY)	MACT Review Required (Yes or No)
PM	51.49	-235.3	-183.81	na
PM10	42.69	-145.5	-102.81	na
SO_2	46.02	-3168.2	-3122.18	na
NOx	243.54	-1141	-897.46	na
VOC	32.82	-169.72	-136.9	na
CO	144.99	-7136.95	-6991.96	na
Lead	0.56	-2.06	-1.5	na
H_2S	1.59	-515.3	-513.71	na
HCl	5.76	-1.98	3.78	No
Mercury	1.29	-1.54	-0.25	No
Total HAPs	11.79	-12.15	-0.36	No

The dominate Single HAP prior to the modification was Manganese.
The dominate Single HAP after the modification is Hydrogen Chloride.

Table 3. Total Facility Potential to Emit Summary:

This table shows the facility's overall potential to emit following the permitted changes.

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Potential Emissions*	101.7	61.1	52.3	283.4	155.6	2797	0.59	5.75	17.45

* These may differ from those in the permit application sent by the company in that they have been verified and corrected as need be by Minnesota Pollution Control Agency (MPCA) staff. These are the potential emissions that would appear in a public notice.

Table 4. Permit Action Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	NOx	PM10, SO2, CO, VOC	Pb
Non-Attainment Area Review (NAAR) (list pollutant)	PM10**		
Part 70 Permit Program (list pollutant)	PM, NOx, CO	PM10, SO2, VOC, Single HAP, Total HAPs	Pb

* Refers to potential emissions that are less than those specified as major by 40 CFR 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

** Although the facility as modified is not 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 Overview of Units Affected by the Modification

Table 5. Regulatory Overview

EU, GRP, or SV #	**Applicable Regulations**	**Comments**
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 PM-10 nonattainment area

EU, GRP, or SV #	Applicable Regulations	Comments
GP005 – Fluidized Bed Incinerators; 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, PM-10, 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 PM-10 non-attainment area Metropolitan Council and MPCA staff diasgree on the applicability of Minn. Stat. 116.85.
GP006 - Auxiliary boilers	40 CFR pt. 60, subp. A 40 CFR pt. 61, 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 PM-10 non-attainment area
GP007 - Alkaline Stabilization 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, PM-10, 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 PM-10 non-attainment area
GP015 – Centrifuge feed tanks, vents, and cake bins	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.

EU, GRP, or SV #	Applicable Regulations	Comments
EU026 – Paint Booth	Minn. R. 7011.0700 - .0735 Minn. Stat. 116.07, subd. 4a	The paint booth conditions require a Pollution Prevention plan, citing Minn. Stat. 116.07, subd. 4a, to reduce usage of toxic materials
EU044 – Emergency Generator #7	Minn. R. 7011.2300 40 CFR § 52.21	Operational limits taken to keep the potential emissions increase of the modification to less than significant as defined by 40 CFR § 52.21
EU045 – Sand Truck Unloading Related control equipment	Minn. R. 7011.0700 - .0735 40 CFR § 52.21 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 Limits taken to comply with the facility's SIP Order for the PM-10 non-attainment area
EU046 – Carbon Truck Unloading Related control equipment	Minn. R. 7011.0700 - .0735 40 CFR § 52.21 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 Limits taken to comply with the facility's SIP Order for the PM-10 non-attainment area
EU047 – Salt Truck Unloading Related control equipment	Minn. R. 7011.0700 - .0735 40 CFR § 52.21 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 Limits taken to comply with the facility's SIP Order for the PM-10 non-attainment area
CE048-050 – Mercury 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 is not required to meet the permitted emission limits, but is included in this permit as control equipment on site.
CE051 - Biofilter	Minn. R. 7007.0800, subp. 14 and 16(J)	The Biofilter is added control equipment to pre-existing processes for hydrogen sulfide control.

3. Technical Information

3.1. Environmental Assessment Worksheet (EAW)

Metropolitan Council (Council) voluntarily agreed to perform an EAW for the Solids Processing Facility. At the MPCA Citizens' Board meeting on April 24, 2001, the MPCA decided that the Council did not need to complete an Environmental Impact Statement.

3.2. Air Toxics Review (ATR)

The Council conducted an ATR for the total facility, as it will exist following all proposed modifications. Issues raised by the ATR concerned hydrogen sulfide ambient concentrations and Paint Booth hazardous air pollutants emissions. In response, the permit requires ambient hydrogen sulfide monitoring. In addition, the permit requires the facility to create a Pollution Prevention plan with the goal of reducing or eliminating toxic chemicals from the painting processes.

3.3. 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. § 115.85, 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.

3.4. 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.

3.5. Pollution Control Efficiencies

This permit includes control equipment efficiencies at places where they are deemed appropriate. In most instances, the inclusion of a control equipment efficiency would be technically irresponsible. For example, the ash handling equipment is controlled by a fabric filter. The limit is expressed as a concentration – 0.005 grains per dry standard cubic foot – rather than as a percent removal efficiency. At times the control equipment will be operating and filtering relatively clean air. To expect the fabric filter to reduce the particulate matter in clean air by 99.9 percent is entirely inappropriate. The goal for the operation is a grain loading, not a percent removal. Therefore, control efficiencies cannot be justified in these instances.

3.6. Ash management

Dry incinerator ash will be produced by the pollution control equipment, and from the dry electrostatic precipitator (ESP) in particular. In Section 23.1.2.2 of the EAW, the Council stated its intent to pursue beneficial re-use of ash. Because mercury is removed by the ESP, the resulting ash will contain that mercury. The Council provided the following in Amendment 1 to its Voluntary Mercury Reduction Agreement (VMRA):

> **6.3.4 VMRA Commitment:** Management of ash from the fluidized bed incinerators will be conducted in such a manner as to minimize the re-release of mercury to the atmosphere to the greatest extent practicable.

The MPCA is committed to addressing mercury through the VMRA and other applicable regulatory processes that assure review by the MPCA and participation by all interested parties, such as the facility's Solid Waste permit. If the reduction goals are not achieved under the VMRA strategy as laid out in the Statute, the mercury emissions from this and other facilities would be addressed on a case-by-case basis in recognition of any new rule or statute promulgated.

3.7. Status of PM-10 non-attainment area

Late in the process of permit issuance, 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 this permit is fundamentally a "pre-construction" permit, establishing conditions to avoid regulation under New Source Review, the language applicable to the non-attainment status will remain. In other words, the language of the permit and associated documents assumes that the area is a PM-10 non-attainment area.

3.8. EPA 45-day review comments

The 45-day EPA review period following the public notice was extended to approximately 13 months. 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), whereas EPA Region V's 45-day review comments were received on October 25, 2001. Region V's comments were eventually distilled down to those regarding NSR netting and actual emissions. The facility had replaced some sludge dewatering devices that supplied sludge to the existing multiple hearth incinerators (MHIs), and Region V's concern was that changes made to the dewatering devices resulted in an operational change to the MHIs. Region V believed that the new dewatering devices (centrifuges) would create a drier sludge, allowing the MHIs to burn sludge at a faster rate. To rectify this concern, a permit condition was added to the permit that limits the solids content of the dewatered sludge.

3.9. Individual permit condition comments

Attached as a part of this technical support document (in CD-01 format) is a relisting of many of the permit conditions caused or affected by this amendment, along with a comment section regarding the reasons for the permit conditions and other relevant information.

4. Public Comment Period

Three sets of written comments were received during the public comment period. The attached "Minnesota Pollution Control Agency (MPCA) Responses to Public Comments" includes the compilation of these comments and MPCA's responses. If a permit condition was changed as a result of the comment, the MPCA response states that.

5. Conclusion

Based on the information provided by the Council, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300053-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota rules.

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Attachment: CD-01 Forms
Emission calculations
Minnesota Pollution Control Agency (MPCA) Responses to Public Comments