AIR EMISSION PERMIT NO. 13700112- 004

IS ISSUED TO

Western Lake Superior Sanitary District

WESTERN LAKE SUPERIOR SANITARY DISTRICT
2626 Courtland Street
Duluth, St. Louis County, Minnesota 558061894

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	09/13/95
Major Amendment	07/28/98

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

Permit Type: Part 70; limits to avoid NSR — Major Amendment

Issue Date: January 21, 1997 — **Issue Date: February 22, 1999**

Expiration: January 21, 2002

All Title I Conditions do not expire.

Michael J. Sandusky
Division Manager
Air Quality Division

for Lisa J. Thorvig
Acting 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.

The permit shield, however does not apply to:

1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under Part C of Title I of the Clean Air Act,
2. Any state ambient air quality standard under Minn. R. ch. 7009, and
3. The state noise pollution control rules, Minn. R. ch. 7030.

FACILITY DESCRIPTION:

The Western Lake Superior Sanitary District (WLSSD) facility treats domestic and industrial wastewater from the Duluth area. Contaminants are removed from the wastewater as a sludge which is incinerated in fluid bed reactors. WLSSD also receives municipal solid waste from which it produces a Refuse Derived Fuel (RDF) which is also incinerated in the fluid bed reactors. RDF or a similar supplemental fuel is necessary to be mixed with the sewage sludge in order to burn the sludge effectively.

During 1999, municipal solid waste will become unavailable or of unreliable supply to WLSSD, and therefore WLSSD will not be able to produce RDF as a supplemental fuel for its fluid bed reactors. This permit action authorizes use of coal in place of RDF as a supplemental fuel.

AMENDMENT DESCRIPTION:

Permit and Amendment History			
Permit Type	**Application Date**	**Issuance Date**	**Permit Action Number**
Total Facility Operating	September 13, 1995	January 21, 1997	001
Admin. Amendment	November 26, 1997	April 3, 1998	002
Major Amendment	January 5, 1998	June 9, 1998	003
Major Amendment	July 28, 1998	February 22, 1999	004

Permit Action No. 004: During 1999, municipal solid waste will become unavailable or of unreliable supply to WLSSD, and therefore WLSSD will not be able to produce RDF as a supplemental fuel for its fluid bed reactors. This permit action authorizes use of coal in place of RDF as a supplemental fuel.

Permit Action No. 003 is for the increasing of the particulate matter limit for EU 045 (Conveyors Building 10). The original permit limit was set at 1.24 lbs per hour based upon an AP-42 emission factor with no safety factor added on. A performance test on EU 045 following issuance of the original Title V permit (Air Emission Permit No. 13700112-002) showed emissions to be at 3.3 lbs per hour. This permit sets the emission limit at 4.0 lbs per hour which accounts for a safety factor of 1.2 added on to the stack tested value of 3.3 lbs per hour. This increase in the allowable particulate emissions amounts to a 12 ton per year potential increase. Adding this increase to the existing facility wide potential particulate matter emissions still keeps the facility nonmajor for particulate matter for Prevention of Significant Deterioration permitting. The potential PM emissions increase from 174 tons per year to 186 tons per year and the potential $PM\text{-}_{10}$ emissions increase from 162 tons per year to 174 tons per year.

Permit Action No. 002: The Permittee eliminated stack vents (S/V) 057 and 058 from the fabric filter CE 001, for Dry Ash Coolers EU 038 and 039, and eliminated S/V 065 from fabric filter CE 003 for Dry Ash Conveyance system EU 040, by constructing ductwork from the fabric filters outlet to the sieve tray scrubber part of the venturi/sieve tray scrubber system for Fluidized Bed Reactor 1 (EU 041), and to the sieve tray scrubber part of the venturi/sieve tray scrubber sytem for Fluidized Bed Reactor 2 (EU 042). The emissions from the fabric filters can be directed to either sieve tray scrubber via dampers. The purpose of the changes was elimination of monitoring, recordkeeping and reporting requirements for the pressure drop through the fabric filters. The amendment was granted per Minn. R. 7007.1400, subp. 1.D(3).

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

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
WLSSD will incinerate 15,000 cfm of odorous gases from the common influent channel EU3, the oxygenation influent channel EU13, and grit tank effluent channel EU14, whenever a fluidized bed incinerator is in operation. WLSSD will maintain existing covers over grates and openings in these areas to minimize infiltration of ambient air.	Minn. R. 7011.0075, subp. 1 Minn. R. 7007.0800, subp. 2
WLSSD will operate and maintain the caustic scrubber SV78 for the sludge storage tanks at all times that the sludge storage tanks are operating.	Minn. R. 7011.0075, subp. 1 Minn. R. 7007.0800, subp. 2
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)
Operate the control equipment monitoring equipment whenever the control equipment is required to operate in compliance.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
WLSSD will have two options to choose from when determining if TRS ambient targets are exceeded; ambient monitoring or source testing and modeling. If the first option is chosen WLSSD will submit an ambient monitoring plan for MPCA approval, within 90 days of permit issuance. The plan will provide for commencement of ambient air monitoring for total reduced sulfur compounds (TRS) at one site in the vicinity of the WLSSD facility, within 180 days of permit issuance. Upon approval by MCPA, this plan is an enforceable part of this permit. Monitoring will continue for at least one year, until sufficient data is collected to determine if WLSSD TRS emissions cause exceedances of the TRS ambient targets. Ambient monitor siting, operation, quality assurance, data submittal, and other aspects of the ambient monitoring plan will be conducted in accordance with MPCA, AQD Exhibit M, and the MPCA Quality Assurance and Procedure Manual for Ambient Air Monitoring.	Minn. R. 7007.0800, subp. 2
This plan will also include steps that the Permittee will follow whenever the ambient air TRS targets are exceeded. This will include the investigative steps and the timelines for reporting the corrective actions that the Permittee will take to make progress toward meeting the ambient air TRS target. WLSSD may request the MPCA to review ambient monitoring requirements after collection of one year of valid data, which demonstrates continuous attainment of the ambient TRS targets. WLSSD will continue to abide by the TRS Compliance Plant after shut down of the monitors, if a Compliance Plan has been required by this permit.	Minn. R. 7007.0800, subp. 2 CONTINUED
WLSSD may request the MPCA to review ambient monitoring requirements after collection of one year of valid data, which demonstrates continuous attainment of the ambient TRS targets. WLSSD will continue to abide by the TRS Compliance Plan after shut down of the monitors, if a Compliance Plan has been required by this permit.	Minn. R. 7007.0800, subp. 2 CONTINUED
As an alternative to ambient monitoring, WLSSD may choose the second option and conduct source testing and computer modeling of facility TRS emission sources to quantify TRS emissions and determine modeled ambient concentrations of TRS, to determine if WLSSD TRS emissions cause exceedances of the TRS ambient targets. The source testing will be conducted in accordance with Minn. R. 7017.2004-.2060 Performance Tests. The testing will include all vents and fugitive emission sources that contribute TRS to the ambient air. The testing will include a representative range of facility operating conditions to insure that worst case emissions are measured. WLSSD will submit a modeling protocol for MPCA approval, within 6 months of permit issuance. The modeling study results, including predicted exceedances of the TRS ambient targets, will be submitted within 12 months of permit issuance.	Minn. R. 7007.0800, subp. 2 CONTINUED
If, after one year of TRS ambient monitoring, TRS ambient levels due to WLSSD emissions exceed the WLSSD TRS ambient targets, WLSSD will submit a TRS Compliance Plan within 24 months of permit issuance. If WLSSD elects to conduct the testing and modeling alternative, and the modeling predicts exceedances of the TRS ambient targets, WLSSD will submit a TRS Compliance Plan within 24 months of permit issuance. The Compliance Plan will contain a schedule and required actions to reduce TRS concentrations in the ambient air to less than the TRS ambient targets. Upon approval by MPCA, this Compliance Plan is an enforceable part of this permit.	Minn. R. 7007.0800, subp. 2 CONTINUED

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Maintain the identity of personnel trained and number of training hours received in the facility's operating record.	Minn. R. 7011.1275, subp. 4; Minn. R. 7011.1215, subp. 5; Minn. R. 7007.0800, subp. 2
Develop and update as needed a site-specific waste combustor operating manual. Keep the manual in a location which is easily accessible by plant personnel.	Minn. R. 7011.1275, subp. 3; Minn. R. 7011.1215, subp. 5; Minn. R. 7007.0800, subp. 2
Retain all records at the stationary source for a period of five years from the date of monitoring, sampling, measurement, or reporting. Records which must be retained at the stationary source include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instruments, and copies of all reports required by the permit.	Minn. R. 7007.0800, subp. 5(C); Minn. R. 7011.1285, subp. 1; Minn. R. 7011.1215, subp. 5; Minn. R. 7007.0800, subp. 2
Maintain a daily operating record which documents the operation of the waste combustor. The record must contain the items described in Minn. R. 7011.1285, subp. 2, including dumpstack usage reporting as required by Minn. R. 7011.1240, subp. 7.	Minn. R. 7011.1285, subp. 2 Minn. R. 7011.1215, subp. 5 Minn. R. 7007.0800, subp. 2
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment, and comply with the plan.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Record keeping: 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)
All submittals required by this permit must be certified by a responsible official as defined in Minn. R. 7007.0100, subp. 21. Submittals which must be provided on forms by the Commissioner are noted in Tables B and C. All submittals must be postmarked or received by the date specified in the tables.	Minn. R. 7007.0800, subp. 6; Minn. R. 7011.1285, subp. 1 Minn. R. 7011.1215, subp. 5; Minn. R. 7007.0800, subp. 2
Application for Permit Amendment: If you need a permit amendment, submit application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Emission Fees: due 60 days after receipt of an MPCA bill	Minn. R. 7002.0005 through Minn. R. 7002.0095
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)
Conduct a waste composition study at least every five years. The study must measure the noncombustible fraction of solid waste as required by Minn. R. 7007.0801, subp. 2(C) and meet the requirements of Minn. R. 7007.0501, subp. 2(A).	Minn. R. 7011.1270, subp. (B)(4); Minn. R. 7007.0501, subp. 2(A); Minn. R. 7007.0801, subp. 1(C); Minn. R. 7011.1215, subp. 5; Minn. R. 7007.0800, subp. 2
Implement the approved Industrial Solid Waste Management Plan in accordance with Minn. R. 7011.1250 and Minn. R. 7035.2535. Modify the plan whenever the management practices or solid wastes identified in the plan have changed. Submit the modified plan to the Commissioner for approval.	Minn. R. 7011.1250 Minn. R. 7007.0801, subp. 2(E) Minn. R. 7007.0800, subp.
Submit the mercury control plan, required by Minn. R. 7011.1255, to the Commissioner and WLSSD shall implement this plan by October 1996, when the Industrial Solid Waste Management Plan is revised next.	Minn. R. 7011.1255 Minn. R. 7007.0801, subp. 2(F) Minn. R. 7007.0800, subp. 2
Plan to separate solid waste which contains Mercury: The plan at a minimum shall include the collection of household batteries, electrical devices and switches, electric lighting components, and solid wastes from laboratories where mercury is used, and shall include a plan to identify, separate, and collect before combustion. WLSSD will maintain this plan as a part of its industrial solid waste plan required by Minn. R. 7011.1250. The mercury separation plan will contain the requirements of Minn. R. 7011.1255. After approval, the mercury waste separation plan is an enforceable condition of this permit.	Minn. R. 7007.0801, subp. 2 F Minn. R. 7011.1255
General Waste Combustor Facility: By June 20. 1997, WLSSD will submit a revised Industrial Waste Management Plan that will address the applicable solid waste management requirements listed in items A to H. Plans required in the items shall identify those required portions of the plan which are not applicable. A. security requirements in part 7035.2535, subp. 3; B. general inspection requirements in part 7035.2535, subp. 4; C. household hazardous waste management requirements of part 7035.2535, subp. 6; D. emergency preparedness and prevention plans and emergency procedures shall be prepared in accordance with parts 7035.2595 and 7035.2605; E. contingency action plans in part 7035.2615; F. closure plans in part 7035.2625 and closure procedures in part 7035.2635; G. solid waste transfer facility requirements as required in part 7035.2865; and H. for waste combustors accepting infectious wastes, infectious waste management requirements of parts 7035.9100 to 7035.9150.	Minn. R. 7011.1245 Minn. R. ch. 7035

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

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)
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying 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, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, such as for system breakdowns, repairs, calibration checks, and zero and span adjustments (as applicable). Monitoring records should reflect any such periods of process shutdown.	Minn. R. 7007.0800, subp. 4(D)
In the event of an emergency, submit to MPCA within 2 weeks a written report describing the emergency, the response, and an evaluation of the effectiveness of the response.	Minn. R. 7011.1245 Minn. R. 7035.2605
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 emission of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notiifcation 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 again 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
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Air Dispersion Modeling Test: Due within four years of permit issuance, WLSSD shall conduct air dispersion modeling from its facility in accordance with the approved air dispersion modeling protocol.	Minn. R. 7009 40 CFR pt. 50
Air Dispersion Modeling Report: Due within four years of permit issuance, WLSSD shall submit a report containing the results of the air dispersion modeling test. If the results indicates that WLSSD contributes to a predicted exceedance of an ambient air quality standard, the Permittee shall submit a compliance schedule addressing this as part of its permit application for permit issuance.	Minn. R. 7009 40 CFR pt. 50
WLSSD shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **GP 001 Fluidized Bed Reactor #1 and #2**

Associated Items:
CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 004 Centrifugal Collector - High Efficiency
CE 005 Centrifugal Collector - High Efficiency
CE 006 Centrifugal Collector - High Efficiency
CE 007 Centrifugal Collector - High Efficiency
CE 008 Centrifugal Collector - Medium Efficiency
CE 009 Centrifugal Collector - Medium Efficiency
CE 010 Centrifugal Collector - Medium Efficiency
CE 011 Wet Scrubber - High Efficiency w/Lime Slurry
CE 012 Wet Scrubber - High Efficiency w/Lime Slurry
EU 038 Dry Ash Cooler
EU 039 Dry Ash Cooler
EU 040 Dry Ash Pneumatic Conveyance
EU 041 Fluidized Bed Reactor 1
EU 042 Fluidized Bed Reactor 2
EU 045 Conveyors Bldg 10
EU 046 Conveyors Bldg 11
SV 055
SV 056
SV 060
SV 061
SV 069

What to do	Why to do it
Fuel Usage: Combust only sludge, wood, #2 Fuel Oil, natural gas, wastes approved in the Industrial Solid Waste Management Plan, and either RDF or coal. Use of coal is approved based on no physical changes being made to EU 041 and EU 042 to accomodate the use of coal.	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21
Sulfur Content of Fuel: less than or equal to 0.5 percent sulfur by weight for coal	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0500 through 7011.0550
Fuel Usage: less than or equal to 1500000 gallons/year using 12-month Rolling Sum (#2 Fuel Oil)	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight sulfur content in #2 fuel oil.	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21
Prohibited wastes: yard wastes, tires, or other wastes not addressed in the Industrial Solid Waste Management Plan may not be burned.	Minn. R. 7011.1220, subp. 2
Wet Scrubber Pressure Drop: WLSSD shall at all times operate and maintain the wet scrubbers to achieve a pressure drop within the range of the pressure drop measured during the most recent total PCDD/PCDF (dioxin/furan) performance test. An exceedance of the pressure drop operating level is considered to have occurred when the pressure drop falls 30 percent below the four hour block average pressure drop measured during the most recent total PCDD/PCDF (dioxin/furan) performance test for a total duration of 15 or more consecutive minutes, to be measured only when sewage sludge or RDF is being charged to the incinerator (i.e., excluding downtime, start-up, and shutdown periods).	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Cyclone Pressure Drop: WLSSD shall at all times operate and maintain cyclones to achieve a pressure drop within the range of the pressure drop measured during the most recent total PCDD/PCDF (dioxin/furan) performance test.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Record daily when the wet scrubbers are in operation the pressure drop across the wet scrubbers in inches of water. Verify that this pressure drop is in compliance with the pressure drop specified for the wet scrubbers. Record the results.	Minn. R. 7007.0800, supb. 2 Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Record daily the pressure drop of the cyclones when the cyclones are in operation. Verify that this pressure drop is in compliance with the pressure drop specified for the cyclones. Record the results.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
A certified operator, meeting the specifications of Minn. R. 7011.1280, must be present at all times when solid waste is being combusted.	Minn. R. 7011.1240, subp. 1 Minn. R. 7011.1215, subp. 5
Reporting: Quarterly reports must include 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, the location of the oil when drawn for sampling (as delivered, refinery, etc.), and the sulfur content of the oil. Quarterly reports must include determination at the end of each month of the annual fuel use limit.	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21
Personnel Training: Waste combustor facility personnel shall complete a program of instruction and on-the-job training based on the operating manual designed by the permittee. The program will train facility personnel to maintain compliance with Minn. R. 7011.1201 to 7011.1285. Complete personnel training by June 20, 1997 for personnel designated in Minn. R. 7011.1275, subp. 2.	Minn. R. 7011.1275, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **GP 002 Lime Storage Silos**

Associated Items: CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 026 Lime Storage Silos (2)

EU 027 Lime Storage Silos (2)

SV 048

SV 049

What to do	Why to do it
Total Particulate Matter: less than or equal to 3.75 lbs/hour	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21 Minn. R. 7011.0715, subp. A
Performance Test Methods: Upon the request of the Commissioner testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1
Process Throughput: less than or equal to 2,500 tons/year using 12 Month Rolling Sum (Lime Usage)	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21
Record: Maintain records of all lime delivered and used.	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 036 Start-up Boiler**

Associated Items: SV 062

SV 066

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.34 lbs/hour as measured by Minn. R. 7011.0725, subp. 2.	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21 Minn. R. 7011.0510, subp. 2
Performance Test Methods: Upon the request of the Commisoner, testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity	Minn. R. 7011.0510, subp. 2
Fuel Usage: Combust only #2 Fuel Oil and natural gas.	Minn. R. 7007.0800, subp. 2
(#2 Fuel Oil) Fuel Usage: less than or equal to 1,500,000 gallons/year using 12 Month Rolling Sum	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21
#2 Fuel oil usage will be tracked by use of an in place rotary flow gauge which will measure fuel oil flow to the startup boiler no later than January 1, 1997. Prior to January 1, 1997 fuel usage will be tracked by the operations log and tank level readings.	Title I Condition:Monitoring for limit to avoid classification as a major source under 40 CFR 52.21
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight . The fuel oil supplier will provide a certification to WLSSD that the sulfur content of the fuel oil delivered is less than 0.5 percent by weight.	Title I Condition:limit to avoid classification as a major source under 40 CFR 52.21
Reporting: Quarterly Reports must include 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, the location of the oil when drawn for sampling (as delivered, refinery, etc.), and the sulfur content of the oil. Quarterly reports must include determination at the end of each month of annual fuel use limit using the 12 month rolling sum method.	Title I Condition:limit to avoid classification as a major source under 40 CFR 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 037 Sand Storage and Feed System**

Associated Items: CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 059

What to do	Why to do it
Total Particulate Matter: less than or equal to 1.45 lbs/hour	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21 Minn. R. 7011.0715, subp. A
Performance Test Methods: Upon the request of the Commissioner testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 038 Dry Ash Cooler**

Associated Items: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 011 Wet Scrubber - High Efficiency w/Lime Slurry

CE 012 Wet Scrubber - High Efficiency w/Lime Slurry

GP 001 Fluidized Bed Reactor #1 and #2

SV 055

SV 056

SV 057

SV 058

SV 060

SV 061

What to do	Why to do it
Operate and maintain control equipment to achieve a removal efficiency of 99 percent or more.	Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate the control equipment whenever the ash cooler is operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 4; Minn. R. 7011.0075, subp. 3
A. Maintain an inventory of spare parts that are subject to frequent replacement as required by manufacturing specification or documented in records under items H and I; B. Train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of abnormal operation; C. Throughly inspect all control equipment at least annually, or as required by the manufacturing specification (this often requires shutting down temporarily); D. Inspect monthly, or as required by manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices and ducts; E. Inspect quarterly, or as required by manufacturing specification, components that are not subject to wear including structural components, housing, ducts, and hoods;	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2
F. Check daily, or as required by the manufacturing specification, monitoring equipment for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. Calibrate annually, or as required by manufacturing specification, all monitoring equipment; H. Maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; anc I. Maintain a record of parts replaced, repaired, or modified fot the previous five years.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2 CONTINUED

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 039 Dry Ash Cooler**

Associated Items: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 011 Wet Scrubber - High Efficiency w/Lime Slurry

CE 012 Wet Scrubber - High Efficiency w/Lime Slurry

GP 001 Fluidized Bed Reactor #1 and #2

SV 055

SV 056

SV 057

SV 058

SV 060

SV 061

What to do	Why to do it
Operate and maintain control equipment to achieve a removal efficiency of 99 percent or more.	Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate the control equipment whenever the ash cooler is operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 4; Minn. R. 7011.0075, subp. 3
A. Maintain an inventory of spare parts that are subject to frequent replacement as required by manufacturing specification or documented in records under items H and I; B. Train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of abnormal operation; C. Throughly inspect all control equipment at least annually, or as required by the manufacturing specification (this often requires shutting down temporarily); D. Inspect monthly, or as required by manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices and ducts; E. Inspect quarterly, or as required by manufacturing specification, components that are not subject to wear including structural components, housing, ducts, and hoods;	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2
F. Check daily, or as required by the manufacturing specification, monitoring equipment for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. Calibrate annually, or as required by manufacturing specification, all monitoring equipment; H. Maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; anc I. Maintain a record of parts replaced, repaired, or modified fot the previous five years.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2 CONTINUED

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 040 Dry Ash Pneumatic Conveyance**

Associated Items: CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 011 Wet Scrubber - High Efficiency w/Lime Slurry

CE 012 Wet Scrubber - High Efficiency w/Lime Slurry

GP 001 Fluidized Bed Reactor #1 and #2

SV 055

SV 056

SV 060

SV 061

SV 065

What to do	Why to do it
Fugitive Ash Emissions: Visible emissions less than 5 percent of the observation period (i.e., 9 minutes per 3-hour period) from ash transfer systems as specified determined by 40 CFR 60.58b(k). The standard applies at all times except during maintenance and repair of ash conveying systems.	40 CFR 60.36b Minn. R. 7007.0800, subp. 2
Operate and maintain control equipment to achieve a removal efficiency of 99 percent or more.	Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate the control equipment whenever the ash conveyor is operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 4; Minn. R. 7011.0075, subp. 3
Performance test to demonstrate fugitive ash emissions limit is being met, upon request of the Commissioner.	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7017.2020, subp. 1B, subp. 1D Minn. R. 7017.2045, subp. 1 Minn. R. 7017.2060, subp. 1 & 5
Performance Test Pre-test Meeting: due 7 days before Performance Test for fugitive ash emission, if necessary to discuss test plan.	Minn. R. 7011.1265, subp. 1 &5 Minn. R. 7017.2030, subp. 4
A. Maintain an inventory of spare parts that are subject to frequent replacement as required by manufacturing specification or documented in records under items H and I; B. Train staff on the operation and monitoring of control equipment and troubleshooting, and train and require staff to respond to indications of abnormal operation; C. Throughly inspect all control equipment at least annually, or as required by the manufacturing specification (this often requires shutting down temporarily); D. Inspect monthly, or as required by manufacturing specification, components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices and ducts; E. Inspect quarterly, or as required by manufacturing specification, components that are not subject to wear including structural components, housing, ducts, and hoods;	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2
F. Check daily, or as required by the manufacturing specification, monitoring equipment for example: pressure gauges, chart recorders, temperature indicators, and recorders; G. Calibrate annually, or as required by manufacturing specification, all monitoring equipment; H. Maintain a record of activities conducted in items A to G consisting of the activity completed, the date the activity was completed, and any corrective action taken; anc I. Maintain a record of parts replaced, repaired, or modified fot the previous five years.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 14; Minn. R. 7011.0075, subp. 2 CONTINUED
Performance Test Methods: Upon the request of the Commissioner testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 041 Fluidized Bed Reactor 1**

Associated Items: CE 004 Centrifugal Collector - High Efficiency

CE 005 Centrifugal Collector - High Efficiency

CE 012 Wet Scrubber - High Efficiency w/Lime Slurry

GP 001 Fluidized Bed Reactor #1 and #2

MR 001

MR 002

MR 006

MR 007

MR 008

MR 009

MR 015

MR 016

MR 017

MR 018

MR 019

SV 060

SV 061

What to do	Why to do it
Applicability of emission limits: the emission limits apply at all times when waste is being combusted, except during periods of start-up, shutdown, or malfunction, provided that the period of start-up, shutdown, or malfunction does not exceed three hours. This exception applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1215, subp. 4
Carbon Monoxide: less than or equal to 100 parts per million dry volume, corrected to 7% O2, as measured by a carbon monoxide CEM.	Minn. R. 7011.1227, table 1 Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 10 percent opacity using 6-minute Average as measured by COMS (opacity).	Minn. R. 7011.1227, table 1 Minn. R. 7007.0800, subp. 2; most stringent, meets limit set by Minn. R. 7011.0500 through 7011.0550
Total Particulate Matter: less than or equal to 0.65 grams/kilogram of production dry sludge input (1.30 lb/ton dry sludge input), as measured by 40 CFR 60.154	40 CFR 60.152(a)(1); most stringent, meets limit set by Minn. R. 7011.0500 through 7011.0550 which apply when coal is combusted with sludge.
Total Particulate Matter: less than or equal to 0.03 grains/dry standard cubic foot @ 7% O2 as measured by Minn. R. 7011.1265, subp. 2A. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(1)(ii) Minn. R. 7007.0800, subp. 2
Lead: less than or equal to 1.6 milligrams/DSCM (700 gr/million dscf) corrected to 7% oxygen, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(2)(iv) Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 80 parts per million corrected to 7% O2, as measured by the sulfur dioxide CEMS, after June 20, 1997. This limit does not apply when coal is combusted.	40 CFR 60.33b(b)(1)(ii) Minn. R. 7007.0800, subp. 2
Muni Waste Combust Organics: less than 125 nanograms/DSCM total mass (measured as total mass dioxins/furans) corrected to 7 percent oxygen. Emissions shall be determined as specified in Minn. R. 7011.1265, subp. 3(B). This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(c)(2) Minn. R. 7007.0800, subp. 2
Cadmium compounds: less than or equal to 0.1 milligrams/DSCM (44 gr/million dscf) corrected to 7% oxygen, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(2)(ii) Minn. R. 7007.0800, subp. 2

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Hydrochloric acid: less than or equal to 250 parts per million by volume, corrected to 7% oxygen, or 50 percent removal, whichever is less, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(b)(2)(ii) Minn. R. 7007.0800, subp. 2
Mercury: less than or equal to 100 micrograms/DSCM corrected to 7% O2 (short term standard) as measured by Minn. R. 7011.1265, subp. 3(C), after June 20, 1997. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1227, Table 1 Minn. R. 7007.0800, subp. 2
Mercury: less than or equal to 60 micrograms/DSCM corrected to 7% O2 (long term standard) as measured by Minn. R. 7011.1265, subp. 3(C), after June 20, 1997. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1227, Table 1 Minn. R. 7007.0800, subp. 2
Beryllium: less than or equal to 10 grams per 24-hour period . In lieu of incinerator stack testing, WLSSD shall analyze its sewage sludge twice per year for beryllium or submit any beryllium emission stack testing results received during the most recent reporting period and provide a statement certifying that WLSSD does not knowingly incinerate "beryllium containing waste" as defined in 40 CFR Section 61.31(g). Should WLSSD determine that it does incinerate "beryllium containing waste," WLSSD shall notify the Commissioner within 5 days of this determination and determine emissions as described in 40 CFR Sections 61.32 through 61.34.	40 CFR 61.32(a) Minn. R. 7011.9940
Operating Restrictions: Mercury additive feed rate. If WLSSD uses an additive to achieve the mercury limits of Minn. R. 7011.1227, subp. 1, the feed rate of additives used to control mercury shall be maintained at all times at a rate of no less than that arithmetic average of the feedrates used during the most recent performance test for mercury which demonstrated compliance with the emission limit. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 6
Cold Startup: During startup from a cold furnance, use auxiliary fuel to achieve combustion chamber operating temperature. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 3;
Auxiliary Fuel Use: Use auxiliary fuel to maintain the operating temperature in the combustion chamber from the time the solid waste feed has been discontinued until active combustion ceases. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 4;
Maximum Capacity: Effective after June 20, 1997, unit load shall not exceed 110% of the maximum demonstrated capacity, as defined in Minn. R. 7011.1201, subp. 32, determined during the last total PCDD/PCDF (Dioxin Furan) performance test, as measured by the steam flow monitoring. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp 5
Operating Restriction: Particulate matter control device maxiumum operating temperature shall be no greater than 30 degrees above the highest 4-hour arithmetic average measured for this gas stream during the most recent performance test for PCDD/PCDFthat demonstrated compliance at all time when solid waste is being charged. Flue gas temperature must be measured at the inlet of the PM control device. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 2
WLSSD shall not operate the incinerator unless the incinerator utilizes auxilary fuel burners that maintain a minimum temperature of 1,200 degress Farenheit for a minimum retention time of 0.3 second or other method of odor control as approved by the Commissioner.	Minn. R. 7011.1305(c)
Exceedances of Emission Limits: If accurate and valid data results of a performance test demonstrate an exceedance of a standard of performance as described in Minn. R. 7011.1225, 40 CFR pt. 60.33b or 60.152(a)(1) or in WLSSD's air emission facility permit after normal start-up, WLSSD shall undertake the following actions: (1) The exceedance shall be reported to the Commissioner; (2) Within 30 days of the report of the exceedance, WLSSD shall undertake appropriate repair or modification to return the waste combustor to compliance or undertake performance testing for a maximum of 30 days, for the purpose of demonstrating compliance with the emission limit. This applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1265, subp. 11

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(3) If the waste combustor cannot be returned to compliance within 30 days of the report of the initial exceedance, the waste combustor shall be shut down. If the modifications to return the waste combustor to compliance require the amendment of the air emission facility permit, the waste combustor shall shut down on the 31st day after the report of the exceedance. (4) When repair of modifications have been completed, WLSSD will demonstrate to the Commissioner that the waste combustor is in compliance. If a shut down was required, the waste combustor will be restarted after WLSSD has notified the Commissioner in writing of the date on which the start-up is planned and when compliance testing is to be completed. WLSSD shall provide notification at least ten days in advance of the compliance test dates. This applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1265, subp. 11 CONTINUED
Initial Performance Test: due 6 months after Permit Issuance or within 6 months of startup operations to determine compliance with total PCDD/PCDF (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb), and Hydrogen Chloride (HCl) limits specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7011.1270 (B)(1) Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (PM, total Dioxin/Furan, Pb, HCl and Cd)	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7017.2030, subp. 4
Performance Test for total PCDF/PCDD (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb) and Hydrogen Chloride (HCl): due before the end of a 12 month operating interval following the Initial Performance Test to determine compliance with PM, total Dioxin/Furan, Cd, HCl, and Pb limits as specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1270, (B)(2)
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270, (B)(2) Minn. R. 7017.2030, subp. 4
If three consecutive performance tests as required by Minn. R. 7011.1270(B), on this unit demonstrate emissions less than or equal 30 ng/dscm at 7% O2 for total PCDD/PCDF (Dixon/Furan), the performance test frequency for PM, total PCDD/PCDF (Dioxin/Furan), HCl, Cd and Pb for the limits specified in 40 CFR Section 60.33b and 40 CFR Section 60.152(a)(1), may be reduced to a frequency of once every 30 month operating interval. The Commissioner must receive written notification of WLSSD's intent to adopt the 30 month operating interval performance test schedule before the date on which a 12 month operating interval performance test is due. The notification must include a listing of the pollutants to be included for the next proposed test date. If a performance test shows noncompliance with an emission limit when a 30 month operating performance testing interval is effective, WLSSD will follow the procedures of Minn. R. 7011.1265, subp. 11.	Minn. R. 7011.1270 (B)(2) Minn. R. 7011.1265, subp. 5 Minn. R. 7011.1215, subp. 5 40 CFR 60.58(b) 40 CFR 60.38(b) Minn. R. 7007.0800, subp. 2
Performance Test for total PCDD/PCDF (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb) and Hydrogen Chloride (HCl): due before end of each 30 month operating interval following the 3 consecutive Performance Tests demonstrating compliance with PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl, and Pb limits as specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1270 (B)(2)
Performance Test Notification (written): due 30 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 1
Performance Test Plan: due 30 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 2 & 3
Performance Test Pre-test Meeting: due 7 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 2 & 3
Performance Test Report: due 60 days after the end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7007.0800, subp. 2
Performance Test Report - Microfiche Copy: due 120 days after the end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2035, subp. 2
Initial Performance Test: due before 01/01/96 to determine compliance with Hg emission limit as specified in Minn. R. 7011.1227, Table 1. WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265.	Minn. R. 7011.1270 (B)(3)(b)
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (Hg)	Minn. R. 7011.1270 (B)(3)(b) Minn. R. 7017.2030, subp. 4

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Performance Test: due before end of each year following Initial Performance Test (12 month operating interval) to determine compliance with Hg emission limit specified in Minn. R. 7011.1227, Table 1. WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265.	Minn. R. 7011.1265, subp. 1 40 CFR 60.39(b) Minn. R. 7007.0800, subp. 2
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (12 month operating interval) (Hg)	Minn. R. 7011.1265, subp. 1 Minn. R. 7017.2030, subp. 4 40 CFR 60.39(b) Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 365 days after Permit Issuance (issuance of permit action 004) or within 6 months of startup operations with use of coal as supplemental fuel to determine particulate matter and carbon monoxide emissions and to determine hazardous air pollutant emissions	Minn. R. 7017.2020, subp 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant emissions	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions.	Minn. R. 7017.2030, subp 4
Install, calibrate, and operate a continuous opacity monitor (COMs) to monitor and record the opacity of the stack gases released to the atmosphere. Operate and maintain the COM in accordance with Minn. R. 7011.1260, subp. 4, 5, and 6. Report opacity using a six-minute average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3A
Install, calibrate, and operate a continuous opacity monitor (COMs) to monitor and record the opacity of the stack gases released to the atmosphere. Report opacity using a six-minute average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Install, calibrate and operate a carbon monoxide continuous emissions monitor at the exit of the waste combustor unit in accordance with Minn. R. 7011.1260, subp. 4, 5, and 6. Record carbon monoxide emissions concentration using a four-hour block average. "Four-hour block average" is defined in Minn. R. 7011.1201, subp. 23. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3A Minn. R. 7011.1260, subp. 4,5,& 6
Install, calibrate and operate a carbon monoxide continuous emissions monitor at the exit of the fluid bed reactor. Record carbon monoxide emissions concentration using a four-hour block average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Monitor: The permittee shall calibrate, maintain and operate a pressure drop meter that continuously measures and records the pressure drop of the gas flow through the wet scrubber. Pressure drop shall be recorded in 15 minute average increments. Calibrate pressure drop monitor every 12 operating months.	40 CFR 60.153(b)(1)
Install and operate a continuous SO2 monitor on the waste combustor unit in accordance with Minn. R. 7011.1260, subp. 4, 5 and 6. Report SO2 concentrations using a 24-hour geometric average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.39b Minn. R. 7011.1260, subp. 3(A)
Install and operate a continuous SO2 monitor on the fluid bed reactor. Report SO2 concentrations using a 24-hour geometric average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Monitor: The permittee shall calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas, according to procedures in 40 CFR 60.5b. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the incinerator exhaust gas stream, fan, ambient air recirculation damper or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of + or - 5 percent over its operating range and shall be calibrated according to the methods prescribed by the manufacturer at least every 24 hour operating period.	40 CFR 60.153(b)(2) 40 CFR 60.33b Minn. R. 7011.1260 Minn. R. 7007.0800, subp. 2
Monitor: The permittee shall calibrate, maintain and operate a temperature measuring device to continuously monitor and record the temperature in the bed and outlet of fluidized bed incinerators. Each temperature monitor shall be certified by the manufacturer to have an accuracy of +/-5 percent over operating its range. The monitor shall be maintained and calibrated every 12 operating months.	40 CFR 60.153(b)(3)

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Reporting of Exceedances of continuously monitored emissions: If accurate and valid data results collected from carbon monoxide or sulfur dioxide monitors exceed emission limits the following procedure shall be followed. (1) Exceedance shall be reported to the Commissioner (2) Repairs or modifications shall be completed within 72 hours, if compliance cannot be achieved within 72 hours then the waste combustor shall be shut down (3) When repairs or modifications have been completed before beginning continuous operation, the Permittee shall demonstrate to the Commissioner that the waste combustor is in compliance. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Under other operating conditions, the following requirement applies.	Minn. R. 7011.1260, subp. 7
Excess Emissions/Downtime Reports (EERs): The Permittee shall submit an EER, due within 30 days of the end of each calendar quarter, which lists all periods of excess emissions (including those due to startup, shutdown, and malfunction), COM and CEM downtime, COM and CEM bypass, and dumpstack use.	Minn. R. 7019.2000; Minn. R. 7007.0800, subp. 4
Wet Scrubber Inlet Temperature Monitoring: Install and operate a monitor that continuously measures the flue gas temperature at the inlet to the wet scrubber. Record the temperature using a four-hour arithmetic block average. Operate and maintain the monitor in accordance with Minn. R. 7011.1260, subp. 4, 5 and 6. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 2, 4(A), 5, & 6
Steam Flow Monitoring: After June 20, 1997, operate a continuous steam flow monitor in accordance with Minn. R. 7011.1265, subp. 4a. Record steam flow using a four-hour arithmetic block average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3(A)(2) Minn. R. 7011.1265. subp. 4(A) Minn. R. 7011.1215, subp. 5
Sludge Feedrate Monitoring: Install, calibrate, maintain and operate a flow measuring device for recording & determining the volume of sludge charged to the incinerator. The weighing device shall have an accuracy of + or - 5 percent over its operating range. Sludge flow to the incinerator shall be measured continuously using a magnetic flow meter. The magnetic flow meter will be used to measure the volume of sludge going to the filter belt presses. Using the filter belt press efficiency and daily analysis of the sludge density based on a composite of three grab samples (one during each shift), the quantity of dry sludge charged to the incinerator will be calculated. This magnetic flow meter will be maintained and calibrated on an annual basis, according to manufacturer's recommendations.	40 CFR 60.153(a)(1) Minn. R. 7011.1315 40 CFR 60.53(a)
Sludge Sampling Access: Access shall be provided to the sludge prior to and following the belt presses, so that a well-mixed representative grab sample can be obtained.	40 CFR 60.153(a)(2)
Monitor: The permittee shall install, calibrate, maintain, and operate a weighing device for recording and determining the mass of any municipal solid waste charged to the incinerator when sewage sludge and municipal solid waste are incinerated together. The weighing device shall have an accuracy of + or - 5 percent over its operating range. The weight of the solid waste entering the facility shall be measured on a daily basis (when the facility is accepting waste). The material that is rejected shall be weighed prior to leaving the site for disposal. The difference between the amount accepted and the amount rejected is the mass feedrate of MSW, per day. Maintain a record of waste entering and leaving the facility daily.	40 CFR 60.153(a)(3) 40 CFR 60.53(a)
Monitor: The permittee shall install, calibrate, maintain and operate a device for measuring the flow of each fuel to the incinerator.	40 CFR 60.153(b)(4) 40 CFR 60.53(a)
If the incinerator achieves a particulate matter emission rate of less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton) during its most recent performance test (PM), WLSSD shall not be required to comply with the requirement to continuously operate the temperature monitoring device and record the temperature data specified in 40 CFR 60.153(b)(3).	40 CFR 60.153(d)(1)
If the incinerator achieves a particulate matter emission rate of less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton) during its most recent performance test (PM), WLSSD shall not be required to comply with the requirement to collect and analyze a grab sample of the sludge fed to the incinerator once per day specified in 40 CFR 60.153(b)(5).	40 CFR 60.153(d)(2)
Collect and analyze a grab sample of the sludge fed to the incinerator once per day, using the method specified by this requirement.	40 CFR 60.153(b)(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)
Record: Maintain records of the measured pressure drop of the gas flow through the wet scrubbing device.	40 CFR 60.153(c)(1) 40 CFR 60.5b

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Record: Maintain records of the measured oxygen content of the incinerator exhaust gas.	40 CFR 60.153(c)(2) 40 CFR 60.33b 40 CFR Section 60.5b Minn. R. 7007.0800, subp. 2
Dump stack use: A dump stack shall only be used at the waste combustor when plant or worker safety would be in jeopardy without its use. If used, the use will be recorded in the daily operating record as required in Minn. R. 7011.1285, subp. 2. The record is to include the use of the dump stack and the reason for using the dump stack.	Minn. R. 7011.1240, subp. 7 Minn. R. 7007.1850
Recordkeeping: The owner or operator of a waste combustor shall maintain a permanent record of continuously measured parameters, as specified in Minn. R. 7011.1260, subp. 6. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1260, subp. 6
WLSSD shall maintain on site for a minimum of five years, the following records: annual reports; an initial compliance report; and performance test reports. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1285, subp. 1
Daily Operating Record: The permittee shall maintain a daily record of the operation log to include the following information: date; hours of operation; weight of solid waste combusted; weight of ash (and solid waste sent to the incinerator but not incinerated) disposed of off site; records for one-hour wet scrubber inlet temperatures,one-hour secondary combustion chamber temperatures one-hour waste charging rates, four-hour fabric filter inlet temperatures, and four-hour block average waste charging rates; performance test results; staff training records; and explanation of any deviations. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1285, subp 2 40 CFR 60.53(a)
Record: Maintain records of sludge charged to the incinerator, the measured temperatures of the incinerators, the fuel flow to the incinerators and total solids and volatile solids content of the sludge charged to the incinerator.	40 CFR 60.153(c)(3)
Notification of Reconstruction: due 60 days prior to construction of the proposed replacements.	40 CFR 60.15(d) 40 CFR 60.7(a)(1)
Reporting: WLSSD shall submit a semi-annual report to the Administrator containing a record of the average scrubber pressure drop measurements of each period of 15 minute duration or more during which the pressure drop of the scrubber was more than 30 percent less from that of the average scrubber pressure drop measured during the most recent performance test.	40 CFR 60.155(a)(1)(i)
Reporting: WLSSD shall submit a report semi-annually which contains a record of the average oxygen content in the incinerator exhaust gas for each period of 1-hour duration or more that the oxygen content of the incinerator 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)
Shutdown or breakdown reporting requirements: The permittee shall comply with Minn. R. 7019.1000 in the event of a shutdown or breakdown.	Minn. R. 7011.1240, subp. 8
If data collected from CEMS for sulfur dioxide or carbon monoxide exceed emission limits from Minn. R. 7011.1225, undertake the notification and other procedures described in Minn. R. 7011.1260, subp. 7.	Minn. R. 7011.1260, subp. 7
Quarterly Report: The permittee shall submit quarterly reports to the Commissioner within 30 days after the quarter ending December 30, March 30, June 30 and September 30 of each year beginning with the first quarter following June 20, 1997. The report shall contain the following items: A) calendar date B) carbon monoxide emissions, SO2 emissions, unit load level, and particulate matter control device temperatures as required by Minn. R. 7011.1260, subp. 6, item C. C) instances of dumpstack use D) The identification of operating days when any of the average emission rates, percent reductions, or operating parameters specific under Minn. R. 7011.1260, subp. 6 item C, or the opacity level exceeded the applicable limits, with the reasons for such exceedances as well as a description of corrective actions taken; E) the percent of the operating time for the quarter that the opacity CEMS was operating and collecting valid data;	Minn. R. 7011.1285, subp. 3

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F) the identification of operating days for which the emissions or operational data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken G) the results of daily carbon monoxide CEMS drift tests and accuracy assessments as required in Minn. R. 7011.1260, subp. 5; H) the information required in Minn. R. 7011.1285, subp. 2 items C, D, and E, summarized to reflect quarterly totals; and I) a compliance certification as required by Minn. R. 7007.0800, subp. 6, item C.	Minn. R. 7011.1285, subp. 3 CONTINUED
Continuous Monitoring Systems: Effective after June 20, 1997, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs 40 CFR pt. 58b(e)(7)(i) and (e)(7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that WLSSD is combusting municipal solid waste.	Minn. R. 7011.1260, subp. 5(B) 40 CFR 60.58b Minn. R. 7007.0800, subp. 2
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. The COMS must be adjusted whenever the calibration drift (CD) exceeds the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1000 subp. 5; 40 CFR 60.13(d)
COMS Calibration Error Audit: due before end of each calendar half-year following Permit Issuance. Conduct audits at least 3 months apart but no greater than 8 months apart.	Minn. R. 7007.0800, subp. 2
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to six-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the averaging period.	Minn. R. 7007.0800, subp. 2
CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7007.0800 subp. 2
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B. The RATA shall be conducted during the calendar quarter in which a CGA is not performed. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. 40 CFR pt. 60, Appendix F, Section 4.3.1, shall be used to determine downtime occurences for CEMS.	Minn. R. 7011.1260, subp. 5(G); Minn. R. 7007.0800, subp. 2; Minn. R. 7017.1000 subp. 5
Cylinder Gas Audit: due before end of each calendar half-year following Permit Issuance. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F. The CGA is not required in the calendar half-year in which a RATA is conducted.	Minn. R. 7007.0800, subp. 2
Cylinder Gas Audit: due before end of each calendar quarter following Permit Issuance but in no more than three calendar quarters per calendar year. The RATA shall be conducted during the calendar quarter in which a CGA is not performed. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
The ASME or State-equivalent full operator certification must be obtained by the MWC chief facility operator and shift supervisors by June 20,1998.	40 CFR 60.39b Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

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Subject Item: **EU 042 Fluidized Bed Reactor 2**

Associated Items: CE 006 Centrifugal Collector - High Efficiency

CE 007 Centrifugal Collector - High Efficiency

CE 011 Wet Scrubber - High Efficiency w/Lime Slurry

GP 001 Fluidized Bed Reactor #1 and #2

MR 003

MR 012

MR 013

MR 014

MR 020

MR 021

MR 022

MR 023

MR 024

SV 055

SV 056

What to do	Why to do it
Applicability of emission limits: the emission limits apply at all times when waste is being combusted, except during periods of start-up, shutdown, or malfunction, provided that the period of start-up, shutdown, or malfunction does not exceed three hours. This exception applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1215, subp. 4
Carbon Monoxide: less than or equal to 100 parts per million dry volume, corrected to 7% O2, as measured by a carbon monoxide CEM.	Minn. R. 7011.1227, table 1 Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 10 percent opacity using 6-minute Average as measured by COMS (opacity).	Minn. R. 7011.1227, table 1 Minn. R. 7007.0800, subp. 2; most stringent, meets limit set by Minn. R. 7011.0500 through 7011.0550
Total Particulate Matter: less than or equal to 0.65 grams/kilogram of production dry sludge input (1.30 lb/ton dry sludge input), as measured by 40 CFR 60.154	40 CFR 60.152(a)(1); most stringent, meets limit set by Minn. R. 7011.0500 through 7011.0550 which apply when coal is combusted with sludge.
Total Particulate Matter: less than or equal to 0.03 grains/dry standard cubic foot @ 7% O2 as measured by Minn. R. 7011.1265, subp. 2A. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(1)(ii) Minn. R. 7007.0800, subp. 2
Lead: less than or equal to 1.6 milligrams/DSCM (700 gr/million dscf) corrected to 7% oxygen, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(2)(iv) Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 80 parts per million corrected to 7% O2, as measured by the sulfur dioxide CEMS, after June 20, 1997. This limit does not apply when coal is combusted.	40 CFR 60.33b(b)(1)(ii) Minn. R. 7007.0800, subp. 2
Muni Waste Combust Organics: less than 125 nanograms/DSCM total mass (measured as total mass dioxins/furans) corrected to 7 percent oxygen. Emissions shall be determined as specified in Minn. R. 7011.1265, subp. 3(B). This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(c)(2) Minn. R. 7007.0800, subp. 2
Cadmium compounds: less than or equal to 0.1 milligrams/DSCM (44 gr/million dscf) corrected to 7% oxygen, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(a)(2)(ii) Minn. R. 7007.0800, subp. 2
Hydrochloric acid: less than or equal to 250 parts per million by volume, corrected to 7% oxygen, or 50 percent removal, whichever is less, as measured by Minn. R. 7011.1265, subp. 3. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.33b(b)(2)(ii) Minn. R. 7007.0800, subp. 2

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Mercury: less than or equal to 100 micrograms/DSCM corrected to 7% O2 (short term standard) as measured by Minn. R. 7011.1265, subp. 3(C), after June 20, 1997. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1227, Table 1 Minn. R. 7007.0800, subp. 2
Mercury: less than or equal to 60 micrograms/DSCM corrected to 7% O2 (long term standard) as measured by Minn. R. 7011.1265, subp. 3(C), after June 20, 1997. This standard applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1227, Table 1 Minn. R. 7007.0800, subp. 2
Beryllium: less than or equal to 10 grams per 24-hour period . In lieu of incinerator stack testing, WLSSD shall analyze its sewage sludge twice per year for beryllium or submit any beryllium emission stack testing results received during the most recent reporting period and provide a statement certifying that WLSSD does not knowingly incinerate "beryllium containing waste" as defined in 40 CFR Section 61.31(g). Should WLSSD determine that it does incinerate "beryllium containing waste," WLSSD shall notify the Commissioner within 5 days of this determination and determine emissions as described in 40 CFR Sections 61.32 through 61.34.	40 CFR 61.32(a) Minn. R. 7011.9940
Operating Restrictions: Mercury additive feed rate. If WLSSD uses an additive to achieve the mercury limits of Minn. R. 7011.1227, subp. 1, the feed rate of additives used to control mercury shall be maintained at all times at a rate of no less than that arithmetic average of the feedrates used during the most recent performance test for mercury which demonstrated compliance with the emission limit. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 6
Cold Startup: During startup from a cold furnance, use auxiliary fuel to achieve combustion chamber operating temperature. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 3;
Auxiliary Fuel Use: Use auxiliary fuel to maintain the operating temperature in the combustion chamber from the time the solid waste feed has been discontinued until active combustion ceases. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 4;
Maximum Capacity: Effective after June 20, 1997, unit load shall not exceed 110% of the maximum demonstrated capacity, as defined in Minn. R. 7011.1201, subp. 32, determined during the last total PCDD/PCDF (Dioxin Furan) performance test, as measured by the steam flow monitoring. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp 5
Operating Restriction: Particulate matter control device maxiumum operating temperature shall be no greater than 30 degrees above the highest 4-hour arithmetic average measured for this gas stream during the most recent performance test for PCDD/PCDFthat demonstrated compliance at all time when solid waste is being charged. Flue gas temperature must be measured at the inlet of the PM control device. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1240, subp. 2
WLSSD shall not operate the incinerator unless the incinerator utilizes auxilary fuel burners that maintain a minimum temperature of 1,200 degress Farenheit for a minimum retention time of 0.3 second or other method of odor control as approved by the Commissioner.	Minn. R. 7011.1305(c)
Exceedances of Emission Limits: If accurate and valid data results of a performance test demonstrate an exceedance of a standard of performance as described in Minn. R. 7011.1225, 40 CFR pt. 60.33b or 60.152(a)(1) or in WLSSD's air emission facility permit after normal start-up, WLSSD shall undertake the following actions: (1) The exceedance shall be reported to the Commissioner; (2) Within 30 days of the report of the exceedance, WLSSD shall undertake appropriate repair or modification to return the waste combustor to compliance or undertake performance testing for a maximum of 30 days, for the purpose of demonstrating compliance with the emission limit. This applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1265, subp. 11

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(3) If the waste combustor cannot be returned to compliance within 30 days of the report of the initial exceedance, the waste combustor shall be shut down. If the modifications to return the waste combustor to compliance require the amendment of the air emission facility permit, the waste combustor shall shut down on the 31st day after the report of the exceedance. (4) When repair of modifications have been completed, WLSSD will demonstrate to the Commissioner that the waste combustor is in compliance. If a shut down was required, the waste combustor will be restarted after WLSSD has notified the Commissioner in writing of the date on which the start-up is planned and when compliance testing is to be completed. WLSSD shall provide notification at least ten days in advance of the compliance test dates. This applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1265, subp. 11 CONTINUED
Initial Performance Test: due 6 months after Permit Issuance or within 6 months of startup operations to determine compliance with total PCDD/PCDF (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb), and Hydrogen Chloride (HCl) limits specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7011.1270 (B)(1) Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (PM, total Dioxin/Furan, Pb, HCl and Cd)	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7017.2030, subp. 4
Performance Test for total PCDF/PCDD (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb) and Hydrogen Chloride (HCl): due before the end of a 12 month operating interval following the Initial Performance Test to determine compliance with PM, total Dioxin/Furan, Cd, HCl, and Pb limits as specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1270, (B)(2)
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270, (B)(2) Minn. R. 7017.2030, subp. 4
If three consecutive performance tests as required by Minn. R. 7011.1270(B), on this unit demonstrate emissions less than or equal 30 ng/dscm at 7% O2 for total PCDD/PCDF (Dixon/Furan), the performance test frequency for PM, total PCDD/PCDF (Dioxin/Furan), HCl, Cd and Pb for the limits specified in 40 CFR Section 60.33b and 40 CFR Section 60.152(a)(1), may be reduced to a frequency of once every 30 month operating interval. The Commissioner must receive written notification of WLSSD's intent to adopt the 30 month operating interval performance test schedule before the date on which a 12 month operating interval performance test is due. The notification must include a listing of the pollutants to be included for the next proposed test date. If a performance test shows noncompliance with an emission limit when a 30 month operating performance testing interval is effective, WLSSD will follow the procedures of Minn. R. 7011.1265, subp. 11.	Minn. R. 7011.1270 (B)(2) Minn. R. 7011.1265, subp. 5 Minn. R. 7011.1215, subp. 5 40 CFR 60.58(b) 40 CFR 60.38(b) Minn. R. 7007.0800, subp. 2
Performance Test for total PCDD/PCDF (Dioxin/Furan), Particulate Matter (PM), Cadmium (Cd), Lead (Pb) and Hydrogen Chloride (HCl): due before end of each 30 month operating interval following the 3 consecutive Performance Tests demonstrating compliance with PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl, and Pb limits as specified in 40 CFR 60.33b and 40 CFR 60.152(a)(1). WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265 and include in the report the parameters required by Minn. R. 7011.1265, subp. 4,4a,6,7,8 and 9.	Minn. R. 7011.1270 (B)(2)
Performance Test Notification (written): due 30 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 1
Performance Test Plan: due 30 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 2 & 3
Performance Test Pre-test Meeting: due 7 days before end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2030, subp. 2 & 3
Performance Test Report: due 60 days after the end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7007.0800, subp. 2
Performance Test Report - Microfiche Copy: due 120 days after the end of each 30 month operating interval performance test (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	Minn. R. 7011.1270 (B)(2) Minn. R. 7017.2035, subp. 2
Initial Performance Test: due before 01/01/96 to determine compliance with Hg emission limit as specified in Minn. R. 7011.1227, Table 1. WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265.	Minn. R. 7011.1270 (B)(3)(b)
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (Hg)	Minn. R. 7011.1270 (B)(3)(b) Minn. R. 7017.2030, subp. 4

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Performance Test: due before end of each year following Initial Performance Test (12 month operating interval) to determine compliance with Hg emission limit specified in Minn. R. 7011.1227, Table 1. WLSSD will conduct performance testing in accordance with Minn. R. 7011.1265.	Minn. R. 7011.1265, subp. 1 40 CFR 60.39(b) Minn. R. 7007.0800, subp. 2
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (12 month operating interval) (Hg)	Minn. R. 7011.1265, subp. 1 Minn. R. 7017.2030, subp. 4 40 CFR 60.39(b) Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 365 days after Permit Issuance (issuance of permit action 004) or within 6 months of startup operations with use of coal as supplemental fuel to determine particulate matter and carbon monoxide emissions and to determine hazardous air pollutant emissions	Minn. R. 7017.2020, subp 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant emissions	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions.	Minn. R. 7017.2030, subp 4
Install, calibrate, and operate a continuous opacity monitor (COMs) to monitor and record the opacity of the stack gases released to the atmosphere. Operate and maintain the COM in accordance with Minn. R. 7011.1260, subp. 4, 5, and 6. Report opacity using a six-minute average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3A
Install, calibrate, and operate a continuous opacity monitor (COMs) to monitor and record the opacity of the stack gases released to the atmosphere. Report opacity using a six-minute average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Install, calibrate and operate a carbon monoxide continuous emissions monitor at the exit of the waste combustor unit in accordance with Minn. R. 7011.1260, subp. 4, 5, and 6. Record carbon monoxide emissions concentration using a four-hour block average. "Four-hour block average" is defined in Minn. R. 7011.1201, subp. 23. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3A Minn. R. 7011.1260, subp. 4,5,& 6
Install, calibrate and operate a carbon monoxide continuous emissions monitor at the exit of the fluid bed reactor. Record carbon monoxide emissions concentration using a four-hour block average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Monitor: The permittee shall calibrate, maintain and operate a pressure drop meter that continuously measures and records the pressure drop of the gas flow through the wet scrubber. Pressure drop shall be recorded in 15 minute average increments. Calibrate pressure drop monitor every 12 operating months.	40 CFR 60.153(b)(1)
Install and operate a continuous SO2 monitor on the waste combustor unit in accordance with Minn. R. 7011.1260, subp. 4, 5 and 6. Report SO2 concentrations using a 24-hour geometric average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	40 CFR 60.39b Minn. R. 7011.1260, subp. 3(A)
Install and operate a continuous SO2 monitor on the fluid bed reactor. Report SO2 concentrations using a 24-hour geometric average.	40 CFR 70.6(a)(3)(B) Minn. R. 7007.0800, subp. 4(B)
Monitor: The permittee shall calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas, according to procedures in 40 CFR 60.5b. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the incinerator exhaust gas stream, fan, ambient air recirculation damper or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of + or - 5 percent over its operating range and shall be calibrated according to the methods prescribed by the manufacturer at least every 24 hour operating period.	40 CFR 60.153(b)(2) 40 CFR 60.33b Minn. R. 7011.1260 Minn. R. 7007.0800, subp. 2
Monitor: The permittee shall calibrate, maintain and operate a temperature measuring device to continuously monitor and record the temperature in the bed and outlet of fluidized bed incinerators. Each temperature monitor shall be certified by the manufacturer to have an accuracy of +/-5 percent over operating its range. The monitor shall be maintained and calibrated every 12 operating months.	40 CFR 60.153(b)(3)

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Reporting of Exceedances of continuously monitored emissions: If accurate and valid data results collected from carbon monoxide or sulfur dioxide monitors exceed emission limits the following procedure shall be followed. (1) Exceedance shall be reported to the Commissioner (2) Repairs or modifications shall be completed within 72 hours, if compliance cannot be achieved within 72 hours then the waste combustor shall be shut down (3) When repairs or modifications have been completed before beginning continuous operation, the Permittee shall demonstrate to the Commissioner that the waste combustor is in compliance. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Under other operating conditions, the following requirement applies.	Minn. R. 7011.1260, subp. 7
Excess Emissions/Downtime Reports (EERs): The Permittee shall submit an EER, due within 30 days of the end of each calendar quarter, which lists all periods of excess emissions (including those due to startup, shutdown, and malfunction), COM and CEM downtime, COM and CEM bypass, and dumpstack use.	Minn. R. 7019.2000; Minn. R. 7007.0800, subp. 4
Wet Scrubber Inlet Temperature Monitoring: Install and operate a monitor that continuously measures the flue gas temperature at the inlet to the wet scrubber. Record the temperature using a four-hour arithmetic block average. Operate and maintain the monitor in accordance with Minn. R. 7011.1260, subp. 4, 5 and 6. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 2, 4(A), 5, & 6
Steam Flow Monitoring: After June 20, 1997, operate a continuous steam flow monitor in accordance with Minn. R. 7011.1265, subp. 4a. Record steam flow using a four-hour arithmetic block average. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 3(A)(2) Minn. R. 7011.1265. subp. 4(A) Minn. R. 7011.1215, subp. 5
Sludge Feedrate Monitoring: Install, calibrate, maintain and operate a flow measuring device for recording & determining the volume of sludge charged to the incinerator. The weighing device shall have an accuracy of + or - 5 percent over its operating range. Sludge flow to the incinerator shall be measured continuously using a magnetic flow meter. The magnetic flow meter will be used to measure the volume of sludge going to the filter belt presses. Using the filter belt press efficiency and daily analysis of the sludge density based on a composite of three grab samples (one during each shift), the quantity of dry sludge charged to the incinerator will be calculated. This magnetic flow meter will be maintained and calibrated on an annual basis, according to manufacturer's recommendations.	40 CFR 60.153(a)(1) Minn. R. 7011.1315 40 CFR 60.53(a)
Sludge Sampling Access: Access shall be provided to the sludge prior to and following the belt presses, so that a well-mixed representative grab sample can be obtained.	40 CFR 60.153(a)(2)
Monitor: The permittee shall install, calibrate, maintain, and operate a weighing device for recording and determining the mass of any municipal solid waste charged to the incinerator when sewage sludge and municipal solid waste are incinerated together. The weighing device shall have an accuracy of + or - 5 percent over its operating range. The weight of the solid waste entering the facility shall be measured on a daily basis (when the facility is accepting waste). The material that is rejected shall be weighed prior to leaving the site for disposal. The difference between the amount accepted and the amount rejected is the mass feedrate of MSW, per day. Maintain a record of waste entering and leaving the facility daily.	40 CFR 60.153(a)(3) 40 CFR 60.53(a)
Monitor: The permittee shall install, calibrate, maintain and operate a device for measuring the flow of each fuel to the incinerator.	40 CFR 60.153(b)(4) 40 CFR 60.53(a)
If the incinerator achieves a particulate matter emission rate of less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton) during its most recent performance test (PM), WLSSD shall not be required to comply with the requirement to continuously operate the temperature monitoring device and record the temperature data specified in 40 CFR 60.153(b)(3).	40 CFR 60.153(d)(1)
If the incinerator achieves a particulate matter emission rate of less than or equal to 0.38 g/kg of dry sludge input (0.75 lb/ton) during its most recent performance test (PM), WLSSD shall not be required to comply with the requirement to collect and analyze a grab sample of the sludge fed to the incinerator once per day specified in 40 CFR 60.153(b)(5).	40 CFR 60.153(d)(2)
Collect and analyze a grab sample of the sludge fed to the incinerator once per day, using the method specified by this requirement.	40 CFR 60.153(b)(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)
Record: Maintain records of the measured pressure drop of the gas flow through the wet scrubbing device.	40 CFR 60.153(c)(1) 40 CFR 60.5b

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Record: Maintain records of the measured oxygen content of the incinerator exhaust gas.	40 CFR 60.153(c)(2) 40 CFR 60.33b 40 CFR Section 60.5b Minn. R. 7007.0800, subp. 2
Dump stack use: A dump stack shall only be used at the waste combustor when plant or worker safety would be in jeopardy without its use. If used, the use will be recorded in the daily operating record as required in Minn. R. 7011.1285, subp. 2. The record is to include the use of the dump stack and the reason for using the dump stack.	Minn. R. 7011.1240, subp. 7 Minn. R. 7007.1850
Recordkeeping: The owner or operator of a waste combustor shall maintain a permanent record of continuously measured parameters, as specified in Minn. R. 7011.1260, subp. 6. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1260, subp. 6
WLSSD shall maintain on site for a minimum of five years, the following records: annual reports; an initial compliance report; and performance test reports. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1285, subp. 1
Daily Operating Record: The permittee shall maintain a daily record of the operation log to include the following information: date; hours of operation; weight of solid waste combusted; weight of ash (and solid waste sent to the incinerator but not incinerated) disposed of off site; records for one-hour wet scrubber inlet temperatures,one-hour secondary combustion chamber temperatures one-hour waste charging rates, four-hour fabric filter inlet temperatures, and four-hour block average waste charging rates; performance test results; staff training records; and explanation of any deviations. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b. Recordkeeping requirements that apply during other operating conditions are specified in the Total Facility Requirements section of this permit.	Minn. R. 7011.1285, subp 2 40 CFR 60.53(a)
Record: Maintain records of sludge charged to the incinerator, the measured temperatures of the incinerators, the fuel flow to the incinerators and total solids and volatile solids content of the sludge charged to the incinerator.	40 CFR 60.153(c)(3)
Notification of Reconstruction: due 60 days prior to construction of the proposed replacements.	40 CFR 60.15(d) 40 CFR 60.7(a)(1)
Reporting: WLSSD shall submit a semi-annual report to the Administrator containing a record of the average scrubber pressure drop measurements of each period of 15 minute duration or more during which the pressure drop of the scrubber was more than 30 percent less from that of the average scrubber pressure drop measured during the most recent performance test.	40 CFR 60.155(a)(1)(i)
Reporting: WLSSD shall submit a report semi-annually which contains a record of the average oxygen content in the incinerator exhaust gas for each period of 1-hour duration or more that the oxygen content of the incinerator 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)
Shutdown or breakdown reporting requirements: The permittee shall comply with Minn. R. 7019.1000 in the event of a shutdown or breakdown.	Minn. R. 7011.1240, subp. 8
If data collected from CEMS for sulfur dioxide or carbon monoxide exceed emission limits from Minn. R. 7011.1225, undertake the notification and other procedures described in Minn. R. 7011.1260, subp. 7.	Minn. R. 7011.1260, subp. 7
Quarterly Report: The permittee shall submit quarterly reports to the Commissioner within 30 days after the quarter ending December 30, March 30, June 30 and September 30 of each year beginning with the first quarter following June 20, 1997. The report shall contain the following items: A) calendar date B) carbon monoxide emissions, SO2 emissions, unit load level, and particulate matter control device temperatures as required by Minn. R. 7011.1260, subp. 6, item C. C) instances of dumpstack use D) The identification of operating days when any of the average emission rates, percent reductions, or operating parameters specific under Minn. R. 7011.1260, subp. 6 item C, or the opacity level exceeded the applicable limits, with the reasons for such exceedances as well as a description of corrective actions taken; E) the percent of the operating time for the quarter that the opacity CEMS was operating and collecting valid data;	Minn. R. 7011.1285, subp. 3

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F) the identification of operating days for which the emissions or operational data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken G) the results of daily carbon monoxide CEMS drift tests and accuracy assessments as required in Minn. R. 7011.1260, subp. 5; H) the information required in Minn. R. 7011.1285, subp. 2 items C, D, and E, summarized to reflect quarterly totals; and I) a compliance certification as required by Minn. R. 7007.0800, subp. 6, item C.	Minn. R. 7011.1285, subp. 3 CONTINUED
Continuous Monitoring Systems: Effective after June 20, 1997, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs 40 CFR pt. 58b(e)(7)(i) and (e)(7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that WLSSD is combusting municipal solid waste.	Minn. R. 7011.1260, subp. 5(B) 40 CFR 60.58b Minn. R. 7007.0800, subp. 2
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. The COMS must be adjusted whenever the calibration drift (CD) exceeds the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1000 subp. 5; 40 CFR 60.13(d)
COMS Calibration Error Audit: due before end of each calendar half-year following Permit Issuance. Conduct audits at least 3 months apart but no greater than 8 months apart.	Minn. R. 7007.0800, subp. 2
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to six-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the averaging period.	Minn. R. 7007.0800, subp. 2
CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7007.0800 subp. 2
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B. The RATA shall be conducted during the calendar quarter in which a CGA is not performed. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. 40 CFR pt. 60, Appendix F, Section 4.3.1, shall be used to determine downtime occurences for CEMS.	Minn. R. 7011.1260, subp. 5(G); Minn. R. 7007.0800, subp. 2; Minn. R. 7017.1000 subp. 5
Cylinder Gas Audit: due before end of each calendar half-year following Permit Issuance. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F. The CGA is not required in the calendar half-year in which a RATA is conducted.	Minn. R. 7007.0800, subp. 2
Cylinder Gas Audit: due before end of each calendar quarter following Permit Issuance but in no more than three calendar quarters per calendar year. The RATA shall be conducted during the calendar quarter in which a CGA is not performed. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	Minn. R. 7011.1260, subp. 5(G)
The ASME or State-equivalent full operator certification must be obtained by the MWC chief facility operator and shift supervisors by June 20,1998.	40 CFR 60.39b Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 044 Hammermill (refuse shredder)**

Associated Items: SV 073

SV 074

What to do	Why to do it
Total Particulate Matter: less than or equal to 15.48 lbs/hour	Minn. R. 7011.0715, subp. B
Performance Test Methods: Upon the request of the Commissioner testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 045 Conveyors Bldg 10**

Associated Items: CE 008 Centrifugal Collector - Medium Efficiency

GP 001 Fluidized Bed Reactor #1 and #2

SV 069

What to do	Why to do it
Total Particulate Matter: less than or equal to 4.0 lbs/hour	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21 Minn. R. 7011.0715, subp. A
Air Pollution Control Equipment: Operate hoods at greater than or equal to a 70 percent collection efficiency and cyclones at a greater than or equal to 35 percent control efficiency for total particulate matter whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due within 6 months from permit issuance to determine the efficiency of the cyclones. WLSSD will conduct performance testing in accordance with Minn. R. 7017.2001 to Minn. R. 7017.2060.	Minn. R. 7007.0800, subp. 2 Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (PM)	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7017.2030, subp. 4
Calibrate, maintain, and operate a monitoring device that measures the pressure drop of the gas flow through the cyclones. The device used to monitor cyclone pressure drop shall be certified by the manufacturer to be accurate within + or -1 inch water gauge and shall be calibrated on an annual basis or as often as required by the manufacturer's specification and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Record daily the pressure drop of emission unit operation. Verify that pressure drop is within manufacturer's recommended range for the cyclones. Record the results.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Inspect monthly, or as required by manufacturer's specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2
Inspect quarterly, or as required by manufacturer's specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2
No person shall cause or permit the use of access areas surrounding coal stockpiles and use of all active truck haul roads and parking facilities which are located within a coal handling facility whose coal throughput by truck is less than 200,000 tons unless such areas and roads are treated with water, oils, or chemical agents.	Minn. R. 7011.1105, subp. A(2)
Truck and hauler unloading stations. Control fugitive particulate emissions from the unloading of trucks or haulers by dust suppression methods so that emissions from such sources are minimized.	Minn. R. 7011.1105, subp. C
Stockpiles, stockpile construction, and reclaiming. (1) Control fugitive particulate emissions by dust suppression methods on such operations so that fugitive particulate emissions are minimized. (2) In the alternative, use an underground bottom feed (plow) of coal to an underground conveyor system provided the exhaust gases from the enclosed spaces do not contain particulate matter in excess of 0.020 grains per dry standard cubic foot (gr/dscf).	Minn. R. 7011.1105, subp. F
Enclosed coal handling facilities or emissions units not specifically covered by any other provision in these parts. If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls: (1) install exhaust air systems and control exhaust gases so that particulate emissions in such gases do not exceed 0.020 gr/dscf; (2) control exhaust gases using dust suppression methods so that particulate emissions do not exhibit greater than 20 percent opacity.	Minn. R. 7011.1105, subp. G
Operating practices. Clean up all coal spilled on roads or access areas as soon as practicable using methods that minimize the amount of dust suspended.	Minn. R. 7011.1105, subp. I
Exemption. During freezing temperatures, owners or operators shall not be required to apply water.	Minn. R. 7011.1120
Cessation of Operations. The owner or operator of a coal handling facility shall not conduct any nonessential coal handling operations that are not shielded from the wind or enclosed in a building when steady wind speeds exceed 30 miles per hour as determined at the nearest official station of the United States Weather Bureau or by wind speed instruments on or adjacent to the site.	Minn. R. 7011.1125
Dust Suppression Agents. Nothing in these parts shall authorize the use of surface hardening agents, wetting or chemical agents, foam agents, and oils that may cause ground water or surface water contamination in violation of any applicable water pollution law.	Minn. R. 7011.1140

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 046 Conveyors Bldg 11**

Associated Items: CE 009 Centrifugal Collector - Medium Efficiency

CE 010 Centrifugal Collector - Medium Efficiency

GP 001 Fluidized Bed Reactor #1 and #2

SV 069

What to do	Why to do it
Total Particulate Matter: less than or equal to 14.54 lbs/hour	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21 Minn. R. 7011.0715, subp. A
Air Pollution Control Equipment: Operate hoods at greater than or equal to a 70 % collection efficiency and cyclones at a greater than or equal to 35% control efficiency for total particulate matter whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due within 6 months from permit issuance to determine the efficiency of the cyclones. WLSSD will conduct performance testing in accordance with Minn. R. 7017.2001 to Minn. R. 7017.2060.	Minn. R. 7007.0800, subp. 2 Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test (PM)	Minn. R. 7011.1265, subp. 1 & 5 Minn. R. 7017.2030, subp. 4
Calibrate, maintain, and operate a monitoring device that measures the pressure drop of the gas flow through the cyclones. The device used to monitor cyclone pressure drop shall be certified by the manufacturer to be accurate within + or -1 inch water gauge and shall be calibrated on an annual basis or as often as required by the manufacturer's specification and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Record daily the pressure drop of emission unit operation. Verify that pressure drop is within manufacturer's recommended range for the cyclones. Record the results.	Minn. R. 7007.0800, subp. 2 Minn. R. 7007.0800, subp. 4
Inspect monthly, or as required by manufacturer's specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2
Inspect quarterly, or as required by manufacturer's specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Subject Item: **EU 049 Backup Generator HHW**

Associated Items: SV 076

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . The permittee shall not cause or permit the emission of visible air contaminants from the engine in excess of 20 percent opacity for more than ten consecutive seconds once operating temperatures have been obtained.	Minn. R. 7011.2300
Performance Test Methods: Upon the request of the Commissioner testing shall be done in accordance with Minn. R. 7017.2001-2060.	Minn. R. 7017.2020, subp. 1

TABLE B: SUBMITTALS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

What to send	When to send	Portion of Facility Affected
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance Air Dispersion Modeling Protocol: Due within three years of permit issuance, WLSSD shall submit a dispersion modeling protocol for total facility emissions of PM10, SO2, or NOx to the Commissioner for approval. This requirement applies only to these pollutants for which the allowed emissions equal or exceed 100 tons per year. The dispersion modeling protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, App. W. The protocol will be based on the projected operating conditions under the next permit term.	Total Facility
Notification	due 30 days before Performance Test for fugitive ash emissions (written).	EU040
Performance Test Notification (written)	due 30 days before Initial Performance Test (Hg)	EU041, EU042
Performance Test Notification (written)	due 30 days before Initial Performance Test (PM)	EU045, EU046
Performance Test Notification (written)	due 30 days before Initial Performance Test (PM, total Dioxin/Furan, Cd, HCl, and Pb)	EU041, EU042
Performance Test Notification (written)	due 30 days before Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant emissions	EU041, EU042
Performance Test Plan	due 30 days before Initial Performance Test (Hg)	EU041, EU042
Performance Test Plan	due 30 days before Initial Performance Test (PM)	EU045, EU046
Performance Test Plan	due 30 days before Initial Performance Test (PM, total Dioxin/Furan, Pb, HCl and Cd)	EU041, EU042
Performance Test Plan	due 30 days before Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant (HAP) emissions. The test plan shall address at a minimum HAPs not addressed in the Title V permit application or the major amendment application but listed in U.S. EPA's FIRE data base, version 6.0 or any newer version available at time of test plan preparation.	EU041, EU042
Performance Test Plan	due 30 days before Performance Test for fugitive ash emissions.	EU040
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant emissions.	EU041, EU042
Performance Test Report - Microfiche Copy	due 105 days after Performance Test for fugitive ash emissions.	EU040
Performance Test Report - Microfiche Copy	due 120 days after Initial Performance Test (Hg)	EU041, EU042
Performance Test Report - Microfiche Copy	due 120 days after Initial Performance Test (PM)	EU045, EU046
Performance Test Report - Microfiche Copy	due 120 days after Initial Performance Test (PM, total Dioxin/Furan, Pb, HCl and Cd)	EU041, EU042
Performance Test Report	due 45 days after Initial Performance Test to determine particulate matter, carbon monoxide, and hazardous air pollutant emissions.	EU041, EU042
Performance Test Report	due 45 days after Performance Test for fugitive ash emissions.	EU040
Performance Test Report	due 60 days after Initial Performance Test (Hg)	EU041, EU042
Performance Test Report	due 60 days after Initial Performance Test (PM)	EU045, EU046

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Performance Test Report	due 60 days after Initial Performance Test (PM, total Dioxin/Furan, Pb, HCl and Cd)	EU041, EU042
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	EU041, EU042

TABLE B: RECURRENT SUBMITTALS

02/22/99

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

What to send	When to send	Portion of Facility Affected
CEMS Daily Calibration Drift (CD) Test Log	due 30 days after end of each calendar quarter following Permit Issuance. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	EU041, EU042
COMS Daily Calibration Drift (CD) Test Log	due 30 days after end of each calendar quarter following Permit Issuance. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	EU041, EU042
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Cylinder Gas Audit. This requirement applies only when this unit combusts fuels and/or wastes that would qualify the unit as a waste combustor as defined in Minn. R. 7011.1201, subp. 46 or 40 CFR Section 60.51b.	EU041, EU042
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance. The EER shall include all periods of emission limit exceedances including any exceedances due to startup, shutdown,or malfunctions. An EER shall be submitted for each COM and CEM. The EER shall also indicate all periods of monitor bypasses and dumpstack use.	EU041, EU042
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit.	EU041, EU042
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar half-year following Cylinder Gas Audit	EU041, EU042
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. This report includes deviations that are recorded by a continuous monitoring system, a periodic monitoring system, or deviations that are identified through recordkeeping. Deviation Reporting Forms DRF-1 and DRF-2 shall be used.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 01/21/1997 To be submitted on a form approved by the Commisioner, both to the Commissioner, and to the U.S. EPA Regional Office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be addressed to Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.	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
Performance Test Notification (written)	due 30 days before end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions.	EU041, EU042
Performance Test Notification (written)	due 30 days before end of each year following Initial Performance Test (12 month operating interval) (Hg)	EU041, EU042
Performance Test Notification (written)	due 30 days before end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	EU041, EU042

Facility Name: Western Lake Superior Sanitary District

Permit Number: 13700112 - 004

Performance Test Plan	due 30 days before end of each calendar year following Performance Test to determine particulate matter and carbon monoxide emissions.	EU041, EU042
Performance Test Plan	due 30 days before end of each year following Initial Performance Test (12 month operating interval) (Hg)	EU041, EU042
Performance Test Plan	due 30 days before end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	EU041, EU042
Performance Test Report - Microfiche Copy	due 105 days after end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions.	EU041, EU042
Performance Test Report - Microfiche Copy	due 120 days after end of each year following Initial Performance Test (12 month operating interval) (Hg)	EU041, EU042
Performance Test Report - Microfiche Copy	due 120 days after end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HCl and Pb)	EU041, EU042
Performance Test Report	due 45 days after end of each calendar year following Initial Performance Test to determine particulate matter and carbon monoxide emissions.	EU041, EU042
Performance Test Report	due 60 days after end of each year following Initial Performance Test (12 month operating interval) (Hg)	EU041
Performance Test Report	due 60 days after end of each year following Initial Performance Test (12 month operating interval) (Hg)	EU042
Performance Test Report	due 60 days after end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HC1 and Pb)	EU041
Performance Test Report	due 60 days after end of each year following Initial Performance Test (12 month operating interval) (PM, total PCDD/PCDF (Dioxin/Furan), Cd, HC1 and Pb)	EU042
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar year following CEMS Relative Accuracy Test Audit (RATA). This report consists of a results summary of the RATA.	EU041
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar year following CEMS Relative Accuracy Test Audit (RATA). This report consists of a results summary of the RATA.	EU042

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT (MAJOR AMENDMENT) NO. 13700112-004

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: 4952/4953)
Western Lake Superior Sanitary District 2626 Courtland Street Duluth, Minnesota (218) 722-3336	Western Lake Superior Sanitary District 2626 Courtland Street Duluth St. Louis County

1.2. Description Of The Facility

The Western Lake Superior Sanitary District (WLSSD) facility treats domestic and industrial wastewater from the Duluth area. Contaminants are removed from the wastewater as a sludge which is incinerated in fluid bed reactors. WLSSD also receives municipal solid waste from which it produces a Refuse Derived Fuel (RDF) which is also incinerated in the fluid bed reactors. RDF or a similar supplemental fuel is necessary to be mixed with the sewage sludge in order to burn the sludge effectively.

During 1999, municipal solid waste will become unavailable or of unreliable supply to WLSSD, and therefore WLSSD will not be able to produce RDF as a supplemental fuel for its fluid bed reactors. WLSSD is thus applying for use of coal in place of RDF as a supplemental fuel.

Air emissions from this facility are primarily from the incineration of sewage sludge with a supplemental fuel and include particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compounds (incompletely burned fuel). Small amounts of other pollutants such as metals may also be emitted if they are present in the incoming wastewater to the facility.

1.3 Description of the Activities Allowed By This Major Amendment Permit Action

This permit amendment authorizes the use of coal in place of RDF as a supplemental fuel. Changes made to the previous permit include the following:

a. Under Total Facility requirements, the "Shutdowns", "Breakdowns", and "Reporting of Deviations Endangering Human Health and the Environment" language has been updated to reflect current State Rules, p. A-3.

b. Citations worded as "Title 1 Condition: to avoid NSR, 40 CFR 52.24" have been changed to "Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21" to more clearly document that the condition is to limit the potential-to-emit of the facility as a whole, p. A-4 and A-5.

c. Under GP001, coal has been added as an allowed fuel, with a limit of 0.5 % sulfur. It is noted here that while the State Indirect heating Equipment Rule (Minn. R. 7011.0545) applies when coal is combusted, the 0.5 % sulfur limit is more stringent and insures compliance with the Rule. p. A-4.

d. For the startup boiler, EU036, the opacity limit has been updated to reflect the change to State opacity rules, p. A-7.

e. Under EU041 and EU042, the first condition is clarified to apply only when RDF is combusted, pp. A-12 and A-18.

f. Under EU041 and EU042, the opacity requirement is clarified to explain that the State Indirect Heating Equipment Rule applies, but the permit limit is more stringent, pp. A-12 and A-18.

g. Under EU041 and EU042, the SO2 limit is clarified to apply only when no coal is combusted, pp. A-12 and A-18.

h. Throughout EU041 and EU042, a clause has been added to clarify that certain requirements do not apply unless the fluid bed reactors are operated so as to meet the State definition of "waste combustor." For example, when only sewage sludge and coal are combusted, these units would not be "waste combustors."

i. Under EU041 and EU042, performance (stack emissions) tests have been added for particulate matter and carbon monoxide when coal is combusted, pp. A-14 and A-20.

j. For the Conveyors Building, EU045, the requirements of the State Rules for Coal Handling Facilities have been added, p. A-25.

k. Under Table B, Recurrent Submittals, the annual Compliance Certification has been revised to include submittal to U.S. EPA Region V as well as the MPCA, p. B-3.

1.4. Facility Emissions:

Table 1. Emissions Associated With the Modification

Pollutant	Potential to Emit from the modification (lb/hr)*	Potential to Emit from the modification (TPY)*	Emission Increases Authorized with this Permit Action	Emission Decreases Authorized with this Permit Action	Other contemporaneous emission increases/ decreases (TPY)	Net Emission Change (TPY)	NSR/ 112(g) Threshold Level** (TPY)	NSR/ MACT Review Required (Yes or No)
PM	0	0	None	None	NA	0	250	No
PM10	0	0				0	250	No
SO2	15.8	69.5				69.5	250	No
NOx	21.5	95.0				95.0	250	No
VOC	0.2	0.8				0.8	250	No
CO	0	0				0	250	No
Lead	0	0				0	250/10	No
HAP***	0	0				0	10	No

*This is the difference between the PTE when burning coal with sludge and the PTE when burning RDF with sludge.
**The existing facility is not a major source under the PSD regulation. Therefore the modification must be a major source by itself.
***HAP emissions are based on the information in the Title 5 application. Additional testing is required by this permit action to verify HAP emissions.

Table 2. Permit Action Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	NOx	SO2	CO, VOC
NAAR (list pollutant)	NA	NA	NA
Part 70 Permit Program (list pollutant)	PM, SO2, NOx		CO, VOC

* 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.

2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Units Affected by the Modification

Table 3. Regulatory Overview

Permit actions 001 and 003 established that this stationary source is not a major source under 40 CFR section 52.21. Limits in this permit action (004) identified as "Title I Condition: limit to avoid classification as a major source under 40 CFR section 52.21" establish that the modification allowed under this permit action is not itself a major source.

GP001	40 CFR § 52.21	Coal sulfur limit to avoid classification as a major source
	Periodic monitoring added in this permit action	Supplier certification of fuel sulfur; Annual performance test for PM at EU level using U.S. EPA-approved methods
	Periodic monitoring relevant to this permit action but established in a previous permit	Opacity COM; CO CEM; venturi pressure drop monitor; SO_2 CEM; incinerator oxygen content; incinerator temperature

EU041, EU042	Minn. R. 7011.1201 through Minn. R. 7011.1280	Clarification added that these requirements apply only when fuels or wastes are combusted which qualify EU041 and EU042 as a "waste combustor" as defined in State Rules or federal regulations.
EU045	Minn. R. 7011.1105 through 7011.1140	Coal handling requirements, to which EU045 becomes subject when handling coal

3. Conclusion

Based on the information provided by Western Lake Superior Sanitary District, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700112-004 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Marshall Cole, Craig Averman, Thomas Kosevich, David Beil

4. Comments During the Public Notice

Comments were submitted by Earth Protector and the National Wildlife Federation. A copy of the respose is attached following:

National Wildlife Federation

< >, 1998

Mr. Neil Kagan
National Wildlife Federation
506 East Liberty Street
Ann Arbor, Michigan 48104

Re: Western Lake Superior Sanitary District

Dear Mr. Kagan:

Thank you for your comments on the draft permit (a major permit amendment) for Western Lake Superior Sanitary District (WLSSD).

Minnesota Pollution Control Agency (MPCA) staff believe that WLSSD will comply with all applicable State Rules for air emissions and federal regulations based on the Clean Air Act when combusting coal, and that emission of mercury will be reduced by the use of coal in place of RDF. Thus, MPCA staff will be proceeding with issuance of the permit.

The following information may help understand how the MPCA staff determined the permit conditions. A letter from WLSSD is also attached for comparison and to provide additional information.

Mercury emission estimates

Using data from EPA's FIRE database and Federal Energy Technology Center (FETC)

1. FETC published data on the mercury content of coal which indicates that mercury may be typically 0.1 part per million by weight of the coal. At this level, uncontrolled emissions of mercury would be:

0.1 ton mercury/million tons x 4 tons/hour x 8760 hours/year x 2000 lbs/ton = 7 lbs/year

For comparison, EPA has published an uncontrolled mercury emission factor of 0.000016 pound of mercury for each million btu's of heat input.

0.000016 lb/million btu x 4 tons/hr x 18.6 million btu/ton x 8760 hours/year = 10.4 lbs/year

2. For coal combustion with a wet scrubber for control, emissions are estimated to be approximately 0.000083 lb of mercury per ton of coal burned (EPA data):

0.000083 lb/ton x 4 tons/hour x 8760 hours/year = 2.9 lbs/year

By comparison, WLSSD has estimated mercury emissions from coal use to be 3.7 lbs/year (attached letter).

3. For RDF combustion with no control, emissions are estimated to be approximately 0.0055 lb of mercury per ton of RDF (EPA data):

0.0055 lb/ton x 6.67 tons/hr x 8760 hours/year = 320 lb/year

For comparison, WLSSD has estimated RDF uncontrolled emissions to be 340 lbs/year (attached letter)

4. For RDF combustion with spray dryer for control, emissions are estimated to be approximately 0.000292 - 0.00042 lb of mercury per ton of RDF burned (EPA data):

0.000292 lb/ton x 6.67 tons/hour x 8760 hours/year = 17.1 lbs/year

Permit Renewal

The Title 5 permit required by the federal Clean Air Act for this facility was issued in January 1997 and thus expires in January 2002. If WLSSD's plans change so that they will need to operate the incinerators beyond the end of 2001, they will need to apply for renewal of the permit by July of 2001. Thus, the MPCA will receive advance notice of any change to these plans.

Minnesota Rules Chapter 7052

The Minnesota Rules contained in Chapter 7052 which you reference in your comments are an important part of protection of the waters of Minnesota and Lake Superior. Their applicability, however, is limited to discharges of wastewater or treated water and not to air emissions.

If you have any questions, please feel free to call me at (651) 296-7810.

Sincerely,

Mr. David L. Beil, P.E.
Staff Engineer
Metro District, Major Facilities Section

AQD File 1232A

Enclosure: WLSSD letter dated November 19, 1998