

AIR EMISSION PERMIT NO. 13700013- 001

IS ISSUED TO

Minnesota Power & Light

MINNESOTA POWER AND LIGHT - LASKIN ENERGY

County Road 110 and 633

Aurora, St. Louis County, Minnesota 55705

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application:

Permit Type

Total Facility Operating Permit

Application Date

09/15/95

This permit authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit and with all general conditions listed in Minn. R. 7007.0800, subp. 16, [and all standard permit requirements listed in 40 CFR § 70.6\(a\)](#), which are incorporated by reference. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal ; Part 70

Issue Date: May 12, 1997

Expiration: May 12, 2002

All Title I Conditions do not expire.

Michael J. Sandusky
Acting Division Manager
Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

BAB:lao

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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	(612)296-6300
Outside Metro Area	1-800-657-3864
TTY	(612)282-5332

The rule 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. Any requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control).

FACILITY DESCRIPTION:

The Laskin Energy Center (LEC) is an electric generating facility located near Aurora, Minnesota. This electric power facility contains steam generating boilers, coal receiving, handling, and storage facilities, and ash handling and storage capabilities. The net generating capacity is 110 megawatts (MW) when firing bituminous coal alone or subbituminous coal and waste oil/solvent simultaneously. The net generating capacity is limited to 82 MW when burning subbituminous coal alone.

All operations and equipment within the facility boundary: (1) provide electrical power for on-site and off-site use, (2) provide fuel for electrical power production or support activities, (3) monitor and control air pollutants generated from electrical power production, (4) handle waste material and energy generated by the on-site operations, and (5) provide support activities. The description of these operations and equipment is provided below.

Power Generation

Two high pressure steam boilers feed turbine-generators that generate power. Boilers No. 1 and No. 2 are tangentially-fired units that discharge emissions to the atmosphere through a common 300-foot stack.

Fuel for Power Generation and Support Equipment/Activities

The primary fuel for the boilers is subbituminous coal, delivered to LEC by train. The facility is designed to handle the coal using numerous pieces of equipment and various handling and storage operations that are summarized below.

Coal is unloaded from rail cars and transferred to be: (1) stored prior to crushing and being fed into the boilers, or (2) directly fed to the crusher that feeds the boilers. Railcars unload coal by bottom dumping into below-grade hoppers. An enclosed system conveys coal from the hoppers to the crusher or coal stockpile. The stockpile is located on a 3.5 acre site with a maximum storage capacity of 150,000 tons.

The boilers are also permitted to burn bituminous coal, distillate fuel oil, waste oils/solvents, oily coal, and oily paper-based floor dry. Distillate fuel oil is used as a start-up fuel and bituminous coal is used to maximize generation capacity during system peak conditions. Petroleum-derived waste oils and petroleum distillate solvents are permitted to be burned in either boiler. The distillate fuel oil (No. 2) storage tank capacity is 15,000 gallons. Other fuels and oils needed at the facility include gasoline and lubricating oil. Gasoline is stored in several five-gallon portable containers. Lubricating oil, used in the turbines, is stored in a 10,000-gallon tank.

Air Pollutant Monitoring and Control

The burning of subbituminous coal is the primary source of air pollutants released from electrical power generation. Combustion of bituminous coal, distillate fuel oil, and waste oils/solvents also releases air pollutants. Pollutants emitted at LEC are criteria pollutants: carbon monoxide, Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x), Particulate Matter (PM), Particulate Matter with diameters less than 10 microns in size (PM₁₀), and lead. Small quantities of hazardous air pollutants are released from the burning of LEC fuels.

Continuous monitoring of SO_x, NO_x, oxygen, carbon dioxide, opacity, and stack gas volumetric flow occurs in Stack 001. Opacity, which is a measure of the impervious nature of emission plumes to light, is monitored as an indirect measure of particulate emissions. Continuous monitoring data is collected, analyzed, and stored in a computer data system. The monitoring equipment is regularly checked for its accuracy and precision.

Air emissions are controlled at LEC through a variety of methods. SO₂, PM, PM₁₀, and lead are controlled by a high efficiency wet scrubber. Control of PM surrounding coal handling and storage occurs through rotoclones and a vacuum system and the natural moisture content of the coal.

Waste Heat, Wastes, and Materials

Wastes are generated from the burning of fuels and in the maintenance of equipment used in support of energy production activities. The burning of fuels produces ash. All ash is sent to ash storage ponds within facility boundaries in a wet slurry form. Wastes generated from maintenance activities include oil and other waste materials from truck, front end loader, and other vehicle maintenance.

Additional material is generated in the handling, transporting, and pulverizing of coal. Coal dust generated in the material handling system is collected in air pollution control devices (cyclones) or by a portable vacuum system. Coal handling fugitives are also minimized by process enclosures. The vacuum-collected coal dust is returned to the coal stockpile. Consequently, the collected material is recycled on-site except what is released as fugitive emissions from the coal operations.

Support Activities

Support activities include building, conveyor, major equipment, and vehicle maintenance; general facility activities; piping installation and maintenance; and ash-pond inspection and maintenance. These activities can include painting, welding (including mobile welding stations and acetylene bottles), cleaning operations, and treatment (boiler water). These activities are considered insignificant for permitting purposes.

LEC is authorized to incinerate steam-side boiler cleaning wastes of the EDTA type and ammonium bromate that are generated on-site. Boiler cleaning normally occurs once every five to 10 years.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

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
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
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
Comply with Fugitive Emissions Control Plan: Follow the actions and record keeping specified in the control plan. The plan may be amended with the Commissioner's approval. If the Commissioner determines that you are out of compliance with Minn. R. 7011.0150 or the control plan, then you may be required to amend the control plan and/or install and operate particulate matter ambient monitors.	Minn. Stat. Section 116.07, subd. 4a and 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)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
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)
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)
For all rotoclones controlling emissions from solid fuel handling equipment: 1. Inspect quarterly, or as required by manufacturing 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. 2. Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection. 3. Check visible emissions once every 48 hours. If visible emissions exist, inspect equipment for evidence of malfunction. Record results of the inspection, and any corrective action taken.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Oily Cellulose-Based Sorbents (including rags): Limit combustion to (for the entire facility): 1) cellulose based only, 2) 25 tons per year, and 3) 1.25 tons per hour.	Title I Condition: to ensure that the emissions increase from the addition of the fuel type is less than significant as defined by 40 CFR Section 52.21; and Minn. R. 7007.0800, 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
Oral Notification of Deviations Endangering Human Health or the Environment: Within 24 hours of discovery, orally notify the Commissioner of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7007.0800, subp. 6(A)
Discovery of Deviations Endangering Human Health or the Environment Report (written): due two working days after discovery of deviation, submit a written description of any deviation endangering human health or the environment to the Commissioner. Include the following information in this written description: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7007.0800, subp. 6(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

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
Shutdowns: Notify the Commissioner at least 24 hours in advance of shutdown of any process or control equipment if the shutdown would cause an increase in the emission of air contaminants. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over.	Minn. R. 7019.1000, subp. 1
Breakdowns: Notify the Commissioner immediately of a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emission of air contaminants. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Shutdown and Breakdown Reporting Requirement for the Dust Collector Systems for Material Handling Equipment: Shutdowns and breakdowns shall be reported on a quarterly basis to the Agency. The quarterly report shall include an identification of the dust collector that broke down or was shutdown, the time and reason for the breakdown or shutdown, a description of any repairs made, and the date and time the dust collector was placed back in service.	
Emission Fees: due 60 days after receipt of an MPCA bill	Minn. R. 7002.0005 through Minn. R. 7002.0095
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. The Permittee may require that MPCA inspectors be accompanied by MP staff during the inspection. Permittee's staff shall be available whenever the plant is operating.	Minn. R. 7007.0800, subp. 9(A)
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)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
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)
No emissions of acidic or alkaline substances in such amount that the downwind fall out rate at any place where an adverse effect could occur exceeds the upwind fall out rate by five or more spots per hour, measured in accordance with Minn. R. 7011.0405.	Minn. R. 7011.0400
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state requirement only and is not federally enforceable.	Minn. R. 7030.0010-7030.0080
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

Subject Item: SV 001**Associated Items:** EU 001 Boiler 1

EU 002 Boiler 2

MR 001

MR 002

MR 003

MR 004

MR 005

What to do	Why to do it
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to a one-minute averaging period. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one-minute averaging period.	Minn. R. 7007.0800, subp. 2
COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test. Conduct audits at least 3 months apart but no greater than 8 months apart.	Minn. R. 7007.0800, subp. 2
COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all COMS shall be in continuous operation.	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 twice the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1000; Minn. R. 7007.0800, subp. 2
Recordkeeping: The owner or operator must retain records of all COMS/CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement, or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5
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. 75, Appendix B as amended.	40 CFR Section 75.21
Daily Calibration Error (CE) Test: conduct daily CE testing on all CEMS required by the Acid Rain Program, in accordance with 40 CFR pt. 75 App B.	40 CFR pt. 75 App B, section 2.1
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar half-year following CEM Certification Test (or due each year, depending on the results of the previous test). Conduct a RATA on all CEMS required by the Acid Rain Program, in accordance with 40 CFR pt. 75 App B. If the RATA results indicate a relative accuracy of 7.5% or less, the next RATA is not required for another year.	40 CFR pt. 75 App B, section 2.3
Linearity and Leak Check Test (Acid Rain Program): due before end of each calendar quarter following CEM Certification Test. Conduct a quarterly linearity test on all CEMS required by the Acid Rain Program, in accordance with 40 CFR pt. 75 App B.	40 CFR pt. 75 App B, section 2.2

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

Subject Item: EU 001 Boiler 1

Associated Items: CE 001 Alkaline Fly Ash Scrubbing
SV 001

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million BTU heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period and that a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minute period.	Minn. R. 7011.0510, subp. 2
Sulfur Dioxide: less than or equal to 4.0 lbs/million BTU heat input using 1 Hour Average period for solid fuels, and 2.0 lb/mmBtu when burning liquid fuels. When fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration using the following formula: $w = [2y + 4z] / (y + z)$ where y is the % heat input from liquid fossil fuel and z is the % heat input from solid fossil fuels.	Minn. R. 7011.0510, subp. 1
Comply with the applicable Acid Rain emissions limitation for sulfur dioxide. Takes effect for years beginning January 1, 2000.	40 CFR Section 72.9(c)(1)(ii), 40 CFR Section 72.9(g)(4)
Application for NOx limits: Submit a complete permit application and compliance plan for NOx emissions in accordance with 40 CFR Section 76.9.	40 CFR Section 76.9(b)(2)
Fuel use: limited to sub-bituminous and bituminous coal, distillate oil, boiler cleaning agents, non-hazardous petroleum distillate solvents and derived fuels, used oil, oily coal (coal with oil spilled on it), and oily cellulose-based sorbents (including rags).	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Boiler cleaning agents limited to: EDTA type and Ammonium Bromate, are generated on-site, 5% of total fuel mass, oxygen limited to 3% or greater, agents may only be burned while the boiler is operating at 75 percent of rated capacity or greater.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Burn off-specification and on-specification used oil in accordance with Minn. R. ch. 7045, not to exceed 720 gallons per hour and 2,500,000 gallons annually.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
The Permittee shall burn the same fuel in EU 001 and EU 002 at any time, in order to use the SV 001 SO2 CEM to measure EU 001 and EU 002 SO2 emissions. Before the Permittee is allowed to simultaneously burn different fuels in EU 001 and EU 002, the Permittee shall conduct air dispersion modeling for SV 001 SO2 emissions, and demonstrate that emissions from SV 001 at a rate of 4.0 lb SO2/MMBtu do not cause or contribute to a violation of any SO2 ambient air quality standard.	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 180 days after Permit Issuance to determine compliance with particulate matter emissions limit in Minn. R. 7011.0510, subp. 1.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test for particulate matter	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to determine compliance with the particulate matter emissions limit in Minn. R. 7011.0510 subp 1. The tests shall be conducted at an interval not to exceed 60 months between test dates.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days before each Performance Test) for particulate matter	Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 180 days after Permit Issuance to determine compliance with the opacity limit in Minn. R. 7011.0510, subp. 2.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test for opacity	Minn. R. 7017.2030, subp. 4
Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's maximum normal (continuous) operating load or the maximum permitted operating rate, whichever is lower. The basis for this number must be included in the test plan. If testing is conducted at the alternative operating condition established, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be higher than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 2.A. and 3.B.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

<p>Boiler Operating Conditions Not Meeting the Alternative Operating Conditions During Performance Testing:</p> <p>If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following:</p> <p>(1) If the results of the performance test are greater than 80% of any applicable emission limit for which compliance is demonstrated, then boiler operation will be limited to the tested operating rate.</p> <p>(2) If results are less than or equal to 80% of all applicable emission limits for which compliance is demonstrated, boiler operation will be limited to the tested operating rate.</p> <p>In no case will the new operating rate limit be higher than allowed by an existing permit condition.</p>	Minn. R. 7017.2025, subp. 3.B.
<p>STET (Short Term Emergency and Testing) Operating hours limit:</p> <p>The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating of Generating Equipment (URGE) capacity and to meet emergency energy supply needs. Maintain documentation of all STET operation to demonstrate compliance with this limit. The boiler must meet emission limits during STET operation.</p>	Minn. R. 7007.0800, subp. 2
<p>STET Operation Definition that applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing:</p> <p>If performance test results demonstrate compliance at 80% or less of any applicable emission limits for any tested pollutant, STET operation is defined as operation beyond 110% of the average operating rate achieved during that performance test.</p> <p>If performance test results demonstrate compliance at greater than 80% of any applicable emission limit for any tested pollutant, STET operation is defined as operation beyond 100% of the average operating rate achieved during that performance test.</p> <p>In no case will STET operation be higher than allowed by an existing permit condition.</p>	Minn. R. 7007.0800, subp. 2
<p>The results of a performance test are not final until issuance of a review letter by MPCA, unless specified otherwise by Minn. R. 7017.2001 - 7017.2060.</p>	Minn. R. 7017.2020, subp. 4
<p>Recordkeeping: Keep on site at the source each of the following documents for a period of 5 years from the date the document is created: The certificate of representation, all emissions monitoring information, copies of all reports, compliance certifications, and other submissions or records made under the Acid Rain Program, copies of all documents used to complete an acid rain permit application.</p>	40 CFR Section 72.9(f)(l)
<p>Recordkeeping: maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.</p>	Minn. R. 7007.0800, subp. 2
<p>Apply for Acid Rain Program Permit reissuance: The designated representative shall submit a complete Acid Rain permit application for each source with an affected unit at least 6 months prior to the expiration of an existing Acid Rain Permit in accordance with 40 CFR Section 72.30(c).</p>	40 CFR Section 72.30(c)
<p>Certify Acid Rain Program submittals. Each submission under the Acid Rain Program shall be submitted, signed, and certified by the designated representative or the alternate designated representative for all sources on behalf of which the submission is made in accordance with 40 CFR Section 72.21.</p>	40 CFR Section 72.21
<p>Hold allowances as of the allowance transfer deadline, in the unit's compliance subaccount not less than the total annual emissions of sulfur dioxide for the previous calendar year. Takes effect for years beginning January 1, 2000. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.</p>	40 CFR Section 72.9(c)(1)(i), 40 CFR Section 72.9(g)(4)
<p>The owner or operator shall measure opacity, and all SO₂, NO_x, and CO₂ emissions for each affected unit in accordance with 40 CFR Section 75.10.</p>	40 CFR Section 75.10
<p>Excess emissions and monitoring system performance reports shall include the information required in 40 CFR Section 60.7(c) and (d). MPCA supplied forms DRF-1 and DRF-2 may be used to meet this requirement.</p>	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

Subject Item: EU 002 Boiler 2**Associated Items:** CE 002 Alkaline Fly Ash Scrubbing

SV 001

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million BTU heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period and that a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minute period.	Minn. R. 7011.0510, subp. 2
Sulfur Dioxide: less than or equal to 4.0 lbs/million BTU heat input using 1 Hour Average period for solid fuels, and 2.0 lb/mmBtu when burning liquid fuels. When fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration using the following formula: $w = [2y + 4z] / (y + z)$ where y is the % heat input from liquid fossil fuel and z is the % heat input from solid fossil fuels.	Minn. R. 7011.0510, subp. 1
Comply with the applicable Acid Rain emissions limitation for sulfur dioxide. Takes effect for years beginning January 1, 2000.	40 CFR Section 72.9(c)(1)(ii), 40 CFR Section 72.9(g)(4)
Application for NOx limits: Submit a complete permit application and compliance plan for NOx emissions in accordance with 40 CFR ' 76.9.	40 CFR Section 76.9(b)(2)
Fuel use: limited to sub-bituminous and bituminous coal, distillate oil, boiler cleaning agents, non-hazardous petroleum distillate solvents and derived fuels, used oil, oily coal (coal with oil spilled on it), and oily cellulose-based sorbents (including rags).	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Boiler cleaning agents limited to: EDTA type and Ammonium Bromate, are generated on-site, 5% of total fuel mass, oxygen limited to 3% or greater, agents may only be burned while the boiler is operating at 75 percent of rated capacity or greater.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Burn off-specification and on-specification used oil in accordance with Minn. R. ch. 7045, not to exceed 720 gallons per hour and 2,500,000 gallons annually.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
The Permittee shall burn the same fuel in EU 001 and EU 002 at any time, in order to use the SV 001 SO2 CEM to measure EU 001 and EU 002 SO2 emissions. Before the Permittee is allowed to simultaneously burn different fuels in EU 001 and EU 002, the Permittee shall conduct air dispersion modeling for SV 001 SO2 emissions, and demonstrate that emissions from SV 001 at a rate of 4.0 lb SO2/MMBtu do not cause or contribute to a violation of any SO2 ambient air quality standard.	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 180 days after Permit Issuance to determine compliance with the particulate matter emissions limit in Minn. R. 7011.0510, subp. 1.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test for particulate matter	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to determine compliance with the particulate matter emissions limit in Minn. R. 7011.0510 subp. 1. The tests shall be conducted at an interval not to exceed 60 months between test dates.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days before each Performance Test) for particulate matter	Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 180 days after Permit Issuance to determine compliance with the opacity limit in Minn. R. 7011.0510, subp. 2.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test for opacity	Minn. R. 7017.2030, subp. 4
Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's maximum normal (continuous) operating load or the maximum permitted operating rate, whichever is lower. The basis for this number must be included in the test plan. If testing is conducted at the alternative operating condition established, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be higher than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 2.A. and 3.B.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

<p>Boiler Operating Conditions Not Meeting the Alternative Operating Conditions During Performance Testing:</p> <p>If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following:</p> <p>(1) If the results of the performance test are greater than 80% of any applicable emission limit for which compliance is demonstrated, then boiler operation will be limited to the tested operating rate.</p> <p>(2) If results are less than or equal to 80% of all applicable emission limits for which compliance is demonstrated, boiler operation will be limited to the tested operating rate.</p> <p>In no case will the new operating rate limit be higher than allowed by an existing permit condition.</p>	Minn. R. 7017.2025, subp. 3.B.
<p>STET (Short Term Emergency and Testing) Operating hours limit:</p> <p>The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating of Generating Equipment (URGE) capacity and to meet emergency energy supply needs. Maintain documentation of all STET operation to demonstrate compliance with this limit. The boiler must meet emission limits during STET operation.</p>	Minn. R. 7007.0800, subp. 2
<p>STET Operation Definition that applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing:</p> <p>If performance test results demonstrate compliance at 80% or less of any applicable emission limits for any tested pollutant, STET operation is defined as operation beyond 110% of the average operating rate achieved during that performance test.</p> <p>If performance test results demonstrate compliance at greater than 80% of any applicable emission limit for any tested pollutant, STET operation is defined as operation beyond 100% of the average operating rate achieved during that performance test.</p> <p>In no case will STET operation be higher than allowed by an existing permit condition.</p>	Minn. R. 7007.0800, subp. 2
<p>The results of a performance test are not final until issuance of a review letter by MPCA, unless specified otherwise by Minn. R. 7017.2001 - 7017.2060.</p>	Minn. R. 7017.2020, subp. 4
<p>Recordkeeping: Keep on site at the source each of the following documents for a period of 5 years from the date the document is created: The certificate of representation, all emissions monitoring information, copies of all reports, compliance certifications, and other submissions or records made under the Acid Rain Program, copies of all documents used to complete an acid rain permit application.</p>	40 CFR Section 72.9(f)(l)
<p>Recordkeeping: maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.</p>	Minn. R. 7007.0800, subp. 2
<p>Apply for Acid Rain Program Permit reissuance: The designated representative shall submit a complete Acid Rain permit application for each source with an affected unit at least 6 months prior to the expiration of an existing Acid Rain Permit in accordance with 40 CFR Section 72.30(c).</p>	40 CFR Section 72.30(c)
<p>Certify Acid Rain Program submittals. Each submission under the Acid Rain Program shall be submitted, signed, and certified by the designated representative or the alternate designated representative for all sources on behalf of which the submission is made in accordance with 40 CFR Section 72.21.</p>	40 CFR Section 72.21
<p>Hold allowances as of the allowance transfer deadline, in the unit's compliance subaccount not less than the total annual emissions of sulfur dioxide for the previous calendar year. Takes effect for years beginning January 1, 2000. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.</p>	40 CFR Section 72.9(c)(1)(i), 40 CFR Section 72.9(g)(4)
<p>The owner or operator shall measure opacity, and all SO₂, NO_x, and CO₂ emissions for each affected unit in accordance with 40 CFR Section 75.10.</p>	40 CFR Section 75.10
<p>Excess emissions and monitoring system performance reports shall include the information required in 40 CFR Section 60.7(c) and (d). MPCA supplied forms DRF-1 and DRF-2 may be used to meet this requirement.</p>	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

Subject Item: EU 003 Coal Crusher**Associated Items:** CE 003 6% or Greater Moisture Content

SV 002

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot if not required to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)

TABLE B: SUBMITTALS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy
Permit Number: 13700013 - 001

Table B lists the submittals you must send to the Commissioner. Table B is divided into two sections, for source-specific submittal requirements and for submittals required of all permittees. Source-specific submittals are further organized as either one-time only or recurrent requirements. You may also be subject to additional reporting requirements contained in the compliance schedule located in Table C of this permit. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Submittals which must be provided on standardized forms approved by the Commissioner are noted in Tables B and C.

Send any application for a permit or permit amendment to: Permit Information Coordinator, Permit Section, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4914. Also send the Permit Information Coordinator notices of: accumulated insignificant activities, installation of control equipment, replacement of an emissions unit, and changes that contravene a permit term.

Send all other submittals to: Compliance Tracking Coordinator, Compliance Determination Unit, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance . Dispersion modeling is required for PM10, NOx and SO2. The protocol will describe the proposed modeling methodology and input data in accordance with all requirements of 40 CFR pt. 51, App. W. The protocol may be based on proposed operating conditions under the next permit term if necessary.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance	Total Facility
Fugitive Control Plan	due 60 days after Permit Issuance . The plan shall identify all fugitive emission sources, primary and contingent control measures, and the records to be kept to demonstrate that the plan is implemented.	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test for opacity	EU001, EU002
Performance Test Notification (written)	due 30 days before Initial Performance Test for particulate matter	EU001, EU002
Performance Test Plan	due 30 days before Initial Performance Test for opacity	EU001, EU002
Performance Test Plan	due 30 days before Initial Performance Test for particulate matter	EU001, EU002
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test for opacity	EU001, EU002
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test for particulate matter	EU001, EU002
Performance Test Report	due 45 days after Initial Performance Test for opacity	EU001, EU002
Performance Test Report	due 45 days after Initial Performance Test for particulate matter	EU001, EU002
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	SV001
Report	due 360 days after Permit Issuance specifying parameters that will be monitored as indicators of compliance for EU 001 opacity emissions. The Report shall indicate the frequency of parameter monitoring and recording, and shall be prepared using the results of the initial performance tests for opacity and particulate matter emissions on EU 001 required by this permit.	EU001
Report	due 360 days after Permit Issuance specifying parameters that will be monitored as indicators of compliance for EU 002 opacity emissions. The Report shall indicate the frequency of parameter monitoring and recording, and shall be prepared using the results of the initial performance tests for opacity and particulate matter emissions on EU 002 required by this permit.	EU002
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity limit in Minn. R. 7011.0510, subp. 2. The plan shall specify a testing frequency using the test data based on MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	EU001, EU002

TABLE B: RECURRENT SUBMITTALS

05/12/97

Facility Name: Minnesota Power & Light - Laskin Energy

Permit Number: 13700013 - 001

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	SV001
Linearity Test Results Summary	due 30 days after end of each calendar quarter following Linearity and Leak Check Test (Acid Rain Program) if performed.	SV001
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA) .	SV001
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit .	SV001
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance	Total Facility
Annual Compliance Certification	due 30 days after end of each calendar year following Permit Issuance	Total Facility
Compliance Certification Report (Acid Rain Program)	due 60 days after end of each calendar year starting 01/01/00 an annual compliance certification report for the unit in accordance with 40 CFR ' 72.90(a). The report shall include all information required by 40 CFR ' 72.90(b) and (c).	EU001, EU002
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 60 months following Initial Performance Test (30 days before each Performance Test) for particulate matter	EU001, EU002
Performance Test Plan	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) for particulate matter	EU001, EU002
Performance Test Report - Microfiche Copy	due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) for particulate matter	EU001
Performance Test Report - Microfiche Copy	due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) for particulate matter	EU002
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test) for particulate matter	EU001
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test) for particulate matter	EU002

May 12, 1997

Mr. Bob Lindholm
Environmental Principal
Minnesota Power and Light
30 West Superior Street
Duluth, Minnesota 55802

RE: Final Title V Air Emission Permit No. 13700013-001, for the Laskin Energy Center

Dear Mr. Lindholm:

The enclosed permit, Air Emission Permit No. 13700013-001, authorizes operation of your facility located at County Road 110 and 633, Aurora, St. Louis County, Minnesota.

The amendment is effective from the issuance date of the amendment until the expiration date of the permit. Please read through the permit and review its conditions and requirements. Distribute the permit to staff members responsible for ensuring compliance with the conditions and limitations in the permit. If appropriate, post the permit at the facility.

I have also enclosed the Operator's Summary you requested. It is **not** part of your permit. It contains all of the requirements found in Table A of your permit without the citations.

We appreciate your cooperation and compliance with environmental laws. If you have questions about the permit, please contact me at (218)723-4837.

Sincerely,

Brett A. Ballavance, P.E.
Air Quality Engineer

BAB:lao

Enclosure

cc: Bob Beresford, Duluth Regional Office
AQD File No. 73D