

**AIR EMISSION PERMIT NO. 09000001- 001
IS ISSUED TO**

City of Austin
Southern Minnesota Municipal Power Agency

AUSTIN UTILITIES - NORTHEAST POWER STATION
3701 11th Street Northeast
Austin, Mower County, Minnesota 55912

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	09/12/95

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. 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: Federal ; Part 70

Issue Date: July 13, 1998

Expiration:
All Title I Conditions do not expire.

Michael J. Sandusky
Division Manager
Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

JR: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 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 Austin Utilities Northeast Power Station facility is generates electricity (33 MW maximum capacity) using one coal-fired power boiler (420 MBtu/hr maximum heating capacity). The power boiler also has the capability of combusting natural gas in a backup scenario. Small amounts of waste oils generated on-site are also permitted for combustion in the power boiler. A small (3 MBtu/hr) natural gas-fired auxiliary boiler is used for building heat. Coal handling activities at the facility are performed in designated enclosures.

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station
 Permit Number: 09900001 - 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
OPERATIONAL AND GENERAL REQUIREMENTS	hdr
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)
Operating and/or production limits may be placed on emission units based on operating conditions during compliance testing. Limits set as a result of a compliance test (conducted before or after permit issuance) apply until new operating/production limits are set following formal review of a performance test as specified by Minn. R. 7017.2025.	Minn. R. 7017.2025
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state-only requirement and is not federally enforceable.	Minn. R. 7030.0010 through Minn. R. 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
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)
TESTING REQUIREMENTS	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
RECORDKEEPING, NOTIFICATION, AND SUBMITTALS	hdr
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), as amended
Written 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: 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), as amended
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, as amended
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, as amended
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500, as amended
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), as amended

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B), as amended
Acid Rain Program Electronically Submitted Quarterly Report: due 30 days after end of each quarter starting 01/01/96.	40 CFR Section 75.64
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C), as amended
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095, as amended
MONITORING REQUIREMENTS	hdr
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, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

Subject Item: GP 001 Fugitive Emission Sources**Associated Items:** FS 001 PM and PM10 - Cooling Towers

FS 002 PM and PM10 - Coal Handling/Storage Equipment and Activities

What to do	Why to do it
Fugitive Emissions Control Plan: The Permittee shall maintain a fugitive emissions control plan at the facility. The plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. The plan must be updated as necessary to reflect changes at the facility relative to fugitive emissions control. The Permittee shall follow the actions and record keeping specified in the control plan. If the Commissioner determines the permittee is out of compliance with Minn. R. 7011.0150 or the fugitive emission control plan, then the permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

Subject Item: EU 001 Power Boiler No.1

Associated Items: CE 001 Electrostatic Precipitator - High Efficiency

MR 001

MR 002

MR 003

MR 004

MR 005

SV 001

What to do	Why to do it
POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Sulfur Dioxide: less than or equal to 4.0 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Nitrogen Oxides: less than or equal to 0.46 lbs/million Btu heat input beginning January 1, 2000, and calculated as an annual average.	40 CFR Section 76.7
Opacity: less than or equal to 20 percent opacity using 6-minute Average except during periods of startup, shutdown, or malfunction as provided in Minn. R. 7017.2060, subp. 5. Malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures caused by poor maintenance or careless operation are not malfunctions.	Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.0510, subp. 2
CEMS REQUIREMENTS	hdr
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, Appendix B.	40 CFR pt. 75, Appendix B, Section 2.1
Linearity and Leak Check Test (Acid Rain Program): due before end of each calendar quarter following Permit Issuance. Conduct a quarterly linearity test on CEMS required by the Acid Rain Program, in accordance with 40 CFR pt. 75, Appendix B.	40 CFR pt. 75, Appendix B, Section 2.2
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar half-year following Permit Issuance. Conduct a RATA on all CEMS required by the Acid Rain Program, in accordance with 40 CFR pt. 75, Appendix B. If the RATA results indicate a relative accuracy of 7.5% or less, the next RATA is not required for twelve months.	40 CFR pt. 75, Appendix B, Section 2.3
CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedure in 40 CFR pt. 75, Appendix B as amended.	40 CFR Section 75.21
Emissions Monitoring: The owner or operator shall use a CEMS to measure SO ₂ , NO _x , and CO ₂ emissions and flow rate for each affected unit in accordance with 40 CFR Section 75.10.	40 CFR Section 75.10
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five (5) years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5
COMS REQUIREMENTS	hdr
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 specifications of PS-1 of 40 CFR pt. 60, Appendix B.	Minn. R. 7017.1000; 40 CFR Section 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 6 minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6 minute averaging period.	Minn. R. 7007.0800, subp. 2
Emissions Monitoring: The owner or operator shall use a COMS to measure opacity emissions from SV001.	Minn. R. 7017.1000, subp. 1
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a periods of five (5) years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station
 Permit Number: 09900001 - 001

Initial Performance Test: due before 12/31/98 to measure particulate matter and PM10 emissions from EU 001. Record and submit a summary of data collected simultaneously by the COM, and the SO2 and NOx monitors for each PM and PM10 test run.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure particulate matter emissions from EU 001.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to measure particulate matter emissions from EU 001. Record and submit a summary of data collected simultaneously by the COM, and SO2 and NOx monitors for each PM test run. The tests shall be conducted at an interval not to exceed 60 months between test dates for EU 001.	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)	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, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be greater than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 2(A) and 3(B)
Boiler Operating Conditions Not Meeting Alternative Operating Conditions during Performance Testing: If performance testing is not conducted at or above the Alternative Operating Condition, the boiler operating rate will be limited on an 8-hour block average based on the following criteria: (1) If the results of the performance test are greater than 80% of any applicable emission limit for which compliance is demonstrated, boiler operation will be limited to the tested operating rate. (2) If the results of the performance test are less than or equal to 80% of all applicable emission limits for which compliance is demonstrated, boiler operation will be limited to 110% of the tested operating rate. In no case will the new operating limit be greater than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 3(B)
OTHER LIMITS AND REQUIREMENTS	hdr
Fuel use: limit fuels to bituminous coal, natural gas, and petroleum-derived waste oils generated on-site	Minn. R. 7007.0800, subp. 2
Combust petroleum-derived waste oil generated on-site in accordance with used oil regulations as indicated in Minn. R. ch. 7045 and limit to 5 percent of total heat input on an hourly basis.	Minn. R. 7007.0800, subp. 2
The permittee is not required to operate CE 001 when EU 001 is combusting only natural gas.	Minn. R. 7007.0800, subp. 2
Submit a complete permit application and compliance plan for NOx emissions in accordance with 40 CFR Section 76.9	40 CFR Section 76.9
Emissions from the stationary source cannot exceed any allowances that the source lawfully holds under federal acid rain regulations. Comply with all additional requirements of Minn. R. 7007.0800, subp. 7.	Minn. R. 7007.0800, subp. 7
Short Term Emergency and Testing (STET) operating hours limit: The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating for 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.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

<p>Short Term Emergency and Testing (STET) operation definition that applies to boilers which meet or do not meet Alternative Operating Conditions for performance testing:</p> <p>If performance test results demonstrate compliance at 80% or less for 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 limits 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 greater than allowed by an existing permit condition.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>If the unit has excess emissions, the designated representative shall submit a proposed offset plan in accordance with 40 CFR Section 72.9(e).</p>	<p>40 CFR Section 72.9(e)</p>
<p>Keep the certificate of representation, all emissions monitoring information, copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program on site for a period of 5 years from the date the document was created.</p>	<p>40 CFR Section 72.9(f)</p>
<p>Hold allowances after January 1, 2001, as of the allowance transfer deadline, in the unit's compliance subaccount not less than the total annual emissions of sulfur dioxide from the previous calendar year from the unit.</p>	<p>40 CFR Section 72.9(c)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

Subject Item: EU 002 Auxiliary Boiler No. 2**Associated Items:** SV 002

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
Fuel use: limit fuels to natural gas	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station
Permit Number: 09900001 - 001

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

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before 01/01/98 or as specified in 40 CFR Section 76.9 for nitrogen oxides including compliance plan.	EU001
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 This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, App. W. The protocol shall include the following parameters: NO _x , SO ₂ , and PM ₁₀ .	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure particulate matter emissions from EU 001	EU001
Performance Test Plan	due 30 days before Initial Performance Test to measure particulate matter emissions from EU 001.	EU001
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test (105 days after each Performance Test)	EU001
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure particulate matter emissions from EU 001.	EU001
Performance Test Report	due 45 days after Initial Performance Test to measure particulate matter emissions from EU 001.	EU001
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA)	EU001

TABLE B: RECURRENT SUBMITTALS

07/13/98

Facility Name: Austin Utilities - Northeast Power Station

Permit Number: 09900001 - 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 monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU001
Linearity Test Results Summary	due 30 days after end of each calendar quarter following Linearity and Leak Check Test (Acid Rain Program) if performed.	EU001
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA) , in which the CEMS RATA was conducted.	EU001
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit	EU001
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first semiannual report submitted by the permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification Report (Acid Rain Program)	due 60 days after end of each calendar year starting 01/01/00	EU001
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). The report shall be submitted on a form approved by the Commissioner and must cover all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance . This report is 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)	EU001
Performance Test Plan	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test)	EU001
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test)	EU001

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 09000001-001

This Technical Support Document (TSD) is for all the interested parties of the draft permit and to meet the requirements that have been set forth by the federal regulations and Minnesota Rules (40 CFR § 70.7(a)(5)) and Minn. R. 7007.0850, subp. 1.). The purpose of this document is to provide the legal and factual justification for applicable requirements or policy decisions considered in the preliminary determination to issue the draft permit.

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5. Conclusion

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 4931)
<p><u>Permittee:</u> Austin Utilities 500 Fourth Avenue Northeast Austin, Minnesota 55912</p> <p><u>Co-permittee:</u> Southern Minnesota Municipal Power Agency 500 First Avenue Southwest Rochester, Minnesota 55902</p>	<p>Northeast Power Station 3701 Eleventh Street Northeast Rural Route 1 Austin, Minnesota 55912</p>

1.2. Permit Action Description

The Northeast Power Station is a steam electric generating facility owned by the City of Austin. The facility has an electric generating capacity of 33 MegaWatt (MW) generated using a coal fired steam generating boiler. The boiler also has capability of combusting natural gas as a backup fuel and has a maximum heating capacity of 420 MMBtu/hr. The facility also operates a 3 MMBtu/hr natural gas fired boiler to provide building heat.

Emission units at the Northeast Power Station consist of two boilers as previously described: Power Boiler No. 1 and Auxiliary Boiler No. 2. Emissions from Power Boiler No. 1 are controlled by an electrostatic precipitator. Emissions from Auxiliary Boiler No. 2 are uncontrolled. Sources of fugitive emissions from the facility include cooling towers and coal handling/storage activities.

This permit action is a reissuance of an existing total facility permit (Air Emission Permit No. 1A-87-OT-2) issued by the Minnesota Pollution Control Agency (MPCA). This permit is also the air emissions operating permit required by Title V of the Clean Air Act Amendments of 1990, codified in 40 CFR pt. 70. The application for issuance of the Part 70 total facility operating permit was received September 12, 1995. This permit action meets the requirements of Minn. R. 7007.0800, which specifies requirements for the content of Part 70 permits. The previous total facility permit expired in 1992 and the Permittee has since operated the plant under the conditions of the expired permit as is required by Minn. R. 7001.0160, Continuation of Expired Permit.

1.3 Facility Emissions

1.3.1 Criteria Pollutants

The potential emission rates, in tons per year (tpy), attributable to the facility are summarized in Table 1. Emission calculations are contained in Attachment 1. The facility's regulatory program classification is summarized in Table 2.

Table 1. Total Facility Potential to Emit Summary and Attainment Status:

Pollutant	Potential to Emit (tpy)	Actual Emissions (tpy)	Attainment or Unclassified? (Yes or No)
Particulate Matter less than 10 micron (PM ₁₀)	1,486.15	22.31	Yes
Sulfur Dioxide (SO ₂)	5,155.01	1,094.04	Yes
Nitrogen Oxides (NO _x)	1,639.25	589.38	Yes
Carbon Monoxide (CO)	70.36	21.50	Yes
Lead	1.54	0.06	Yes
Volatile Organic Compounds	4.56	1.66	NA

Table 2. Facility Classification

Classification	Major	Synthetic Minor	Minor	N/A
Prevention of Significant Deterioration	X			
Non Attainment Area (SO ₂ and CO)				X
Operating Permit Program	X			

1.3.2 Hazardous Air Pollutants

No limits have been set in the permit for Hazardous Air Pollutants (HAPs), and currently no ambient standards exist for HAPs. Section 112(n)(1)(A) of the Clean Air Act mandates that the U.S. Environmental Protection Agency (EPA) perform a study to be presented in a report to congress of the hazards to public health reasonably anticipated to occur as a result of emissions of HAPs by fossil fuel fired electric utility steam generating units. The report will include an assessment of HAP emission factors and rates from fossil fuel fired utility boilers, consideration of control strategies, and a determination as to whether HAP emission control from these sources is warranted. The study is referred to as the "Utility HAP Study." The MPCA will amend this permit to be consistent with EPA's rulemaking.

The Utility HAP Study will develop more accurate emission factors based on various boiler types for HAPs than exist now. Currently available emission factors are not considered to be highly accurate. Nonetheless, Austin Utilities was required to estimate HAP emissions for the Northeast Power Station using available factors and submit those estimates with their Part 70 permit application. Those estimates are included in Attachment 1.

2. Applicable Rules

2.1 Federal New Source Review

The facility is classified as a major source as defined in 40 CFR § 52.21. Because the facility existed prior to the effective dates of that program, and none of the facility modifications have exceeded the thresholds for significant emission increases listed in 40 CFR § 52.21(b)(23), the facility has not been required to conduct a review under the New Source Review or Prevention of Significant Deterioration programs.

2.2 Federal New Source Performance Standards

No New Source Performance Standards (NSPS) apply to the facility because the boilers were installed prior to 1971, the earliest applicability date for NSPS for steam generating units.

2.3 Acid Rain Program

Title IV of the Clean Air Act Amendments of 1990 requires electric utilities to substantially reduce emissions of Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x), the primary pollutants that contribute to acid rain. Through the requirement that utilities hold SO₂ allowances for each ton of SO₂ they emit, EPA plans to cut annual national SO₂ emissions by about a factor of two. NO_x emissions reductions will be controlled by emission limits set for each type of utility boiler, on a lb/MMBtu basis. EPA is in the process of developing rules that set the new emission limits.

The regulation takes effect in two phases. Phase I took effect in 1995 and Phase II will take effect in the year 2000. The Northeast Power Station plant is not subject to Phase I, but will be subject to Phase II. As such, the facility will be required to hold allowances equal to the tons of SO₂ emissions from the plant after January 1, 2001. Those allowances and emissions will be tracked by EPA. Though emissions and compliance are the responsibility of EPA, MPCA is required to issue a permit summarizing the requirements of the regulation. Power Boiler No. 1, the only boiler on site subject to Title IV, has requirements associated with it in the permit as required by 40 CFR § 72.50. Additionally, Northeast Power Station will be required to meet NO_x emission limits, set in lb/MMBtu for Power Boiler No. 1. 40 CFR pt. 72 requires the MPCA to reopen the permit and add the NO_x emission limits by January 1, 1999.

2.4 National and State Ambient Air Quality Standards (40 CFR 50)

The National Ambient Air Quality Standards (NAAQS), as found in 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards (MAAQS), set the maximum concentration of pollutants allowed in the ambient air. As such they apply to all air emissions sources. Computer dispersion modeling will be used to determine whether a facility is in compliance with these standards by predicting the maximum ambient concentrations of pollutants that will result from maximum facility operation. The permit contains requirements for computer dispersion modeling to be submitted four years from permit issuance. This is required by the Air Quality Division for all sources with potential emissions greater than 100 tons per year of those pollutants. If modeling shows that lower emission limits are needed to ensure compliance with ambient standards, the lower emission limits will be incorporated into the reissuance of the Title V permit.

2.5 National Environmental Standards for Hazardous Air Pollutants

At this time, there are no promulgated or proposed standards for the emission unit types present at Northeast Power Station.

2.6 State Performance Standards

Power Boiler No. 1 and Auxiliary Boiler No. 2 are subject to Minn. R. 7011.0510, for Existing Indirect Heating Equipment.

2.7 Environmental Assessment

No new construction or increases in emissions are allowed by this permit. Consequently, no environmental assessment is required.

3. Requirements

3.1 Total Facility Requirements:

All general requirements and some site specific conditions are listed at the total facility level. Overall, the Permittee will be required to submit an annual report evaluating the compliance status of the facility for the past calendar year, and to report deviations from permit conditions each six months. The total facility requirements also include requirements for recordkeeping, inspection and entry, the requirements for an operation and maintenance plan, deviations notifications, application for amendments, requirements and procedures for notifications in the event of equipment shutdown/breakdown, and requirements for a fugitive emissions control plan.

3.2 EU 001 - Power Boiler No. 1

Power Boiler No. 1 is rated at a maximum design heat input capacity of 420 MMBtu/hr. Emissions are controlled with an electrostatic precipitator. The primary combustion fuel is coal, although the unit periodically may combust natural gas and petroleum-derived waste oils generated on-site. Waste oil combustion is limited to five percent of total heat input on an hourly basis and must be managed in accordance with used oil regulations as indicated in Minn. R. ch. 7045.

Applicable Regulations: The boiler's emission limits are derived from Minnesota Performance Standards for Existing Indirect Heating Equipment (Minn. R. 7011.0510). The boiler is also subject to the Acid Rain Program as previously discussed. Accordingly, the draft permit contains requirements relative to the acid rain program, and to monitor emissions of SO₂, carbon dioxide, NO_x, and opacity.

Fuel Use Limits: General statutory authority is used to set limits on fuel use types.

Compliance Demonstration: Continuous Emissions Monitoring Systems (CEMS) and Continuous Opacity Monitoring Systems (COMS) are used to measure emissions from Power Boiler No. 1. The draft permit contains specific requirements for calibration, QA/QC, monitoring procedures, recordkeeping, and performance testing.

3.5 EU 002 - Auxiliary Boiler No. 2

Auxiliary Boiler No. 2 is rated at a maximum design heat input capacity of 3 MMBtu/hr. Emissions from this boiler are uncontrolled. The only permitted fuel source is natural gas.

Applicable Regulations: The boiler's emission limits are derived from Minnesota Performance Standards for Existing Indirect Heating Equipment (Minn. R. 7011.0510).

Fuel Use Limits: General statutory authority is used to set limits on fuel use types. The boiler is also subject to the Acid Rain Program as discussed above in Part 2. Accordingly, Table A for the boiler contains requirements to follow the acid rain program, and to monitor emissions of SO₂, carbon dioxide, NO_x, and opacity.

Compliance Demonstration: Performance testing for this emission unit is not specifically required, but is addressed at the total facility level.

3.6 GP 001 - Fugitive Emission Sources

Fugitive Emission Sources at the Northeast Power Station include cooling towers (FS 001) and coal handling/storage equipment and activities (FS 002).

Applicable Regulations: A fugitive emissions control plan is required to be maintained at the facility. The plan must identify all fugitive sources, primary and contingent control measures, and recordkeeping procedures.

Compliance Demonstration: The plan must be current and available for review at any time. Lack of compliance with the fugitive control plan requirements and control measures specified therein may result in requirements to amend the control plan and/or install and operate particulate matter ambient monitors.

4.0 Other Issues

The permit allows combustion of petroleum-derived waste oils generated on-site in Power Boiler No. 1. The permit limits the percentage of input to the boiler of this material. The limit on percentage ensures that combustion conditions within the boiler are not compromised in the event that low Btu materials are burned. Burning large amounts of low Btu materials could result in incomplete combustion of the primary fuel, leading to added HAP formation. Used oil burned for energy recovery is not regulated as hazardous waste.

5. Conclusion

Based on the information provided by Austin Utilities, MPCA has reasonable assurance that the continued operation of the emission facility, as described in Air Emission Permit No. 09000001-001, and this Technical Support Document, will not cause or contribute to a violation of Minnesota or Federal Air Pollution Rules.

Attachments:

1. Pollutant Emission Calculations

For additional information regarding this permit action, contact:

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**ATTACHMENT 1
POLLUTANT EMISSION CALCULATIONS**