

**AIR EMISSION PERMIT NO. 16300005- 002  
IS ISSUED TO**

**NORTHERN STATES POWER COMPANY**

**NSP - ALLEN S KING GENERATOR**

1103 King Plant Road  
Bayport, Washington County, Minnesota 55003

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	September 15, 1995
Major Amendment	December 12, 1997

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.

<b>Permit Type:</b>	Federal ; Part 70 and Acid Rain	Major Amenment
<b>Issue Date:</b>	July 21, 1998	<b>Issue Date: March 5, 1999</b>
<b>Expiration:</b>	July 21, 2003	
	All Title I Conditions do not expire.	

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Michael J. Sandusky  
Division Manager  
Air Quality Division

for Karen A. Studders  
Commissioner  
Minnesota Pollution Control Agency

DKZ: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. **The state noise pollution control rules, Minn. R. ch. 7030.**

**FACILITY DESCRIPTION:**

The Allen S. King Plant is a coal-fired electric utility located on Highway 95 in Oak Park Heights, Minnesota; the facility's mailing address is in Bayport. The facility's emission units consist of boilers, fuel and ash storage and handling equipment, and emergency diesel engines. The facility's main power boiler (Boiler No. 1) is a coal-fired cyclone boiler with a generating capacity of 550 megawatts (MW) of electricity. Pollution control equipment on the main boiler consists of an electrostatic precipitator to control Particulate Matter (PM) emissions. Emissions from fuel and ash storage and handling equipment which are potential sources of PM emissions are controlled using water and other dust suppressants, enclosures, and/or fabric filters.

The focus of this amendment is the addition of the Nitrogen Oxide (NO<sub>x</sub>) requirements to the Phase II Acid Rain portion of the Title V operating permit. The requirements state that the main power Boiler 1 shall limit NO<sub>x</sub> emissions in a manner consistent with the NO<sub>x</sub> averaging plan referenced in the permit. A few administrative changes were made to the permit to bring it current with the latest rule change. The administrative changes consist of wording amendments to the Shutdown, Breakdown and Deviations Endangering Human Health language on the Total Facility pages and the opacity language for each boiler subject to only the state opacity rule.

The permit also allows an extension to the stack test for EU007 from the January 17, 1999 deadline to a new February 28, 1999 deadline. This is due to a warmer than normal November and December which has limited the need for steam heat.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.**

**Subject Item: Total Facility**

<b>What to do</b>	<b>Why to do it</b>
<b>OPERATIONAL LIMITS</b>	hdr
Truck and hauler unloading stations: Control fugitive particulate emissions from the unloading of coal and petroleum coke from trucks or haulers by dust suppression methods so that emissions from such sources are minimized.	Minn. R. 7011.1105, subp. C
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. Maintain air pollution control equipment in proper operating condition and utilize air pollution control systems as designed.	Minn. R. 7011.1105, subp. I
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 recordkeeping specified in the Fugitive Emissions Control Plan required in Table B. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, 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. R. 7007.0800, subp. 2
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
Any stationary internal combustion engines at the facility, including those which qualify as insignificant activities under Minn. R. 7007.1300, must meet the performance standards set out in Minn. R. 7011.2300.	Minn. R. 7011.2300
Control Equipment Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. Inspect and maintain control equipment adequately to minimize breakdowns.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp 16(J)
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)
Temporary boilers or engines may be brought on site for the purpose of providing steam, heat or electrical power in place of boilers or generators that are temporarily out of operation for less than one year. The temporary units may not be operated at the same time as the permanent units that they are meant to replace, except for up to 8 hours during start-up and shutdown transition periods. Temporary units must have potential emission rates in pounds/hour for all criteria pollutants that are less than permit emission limits and the potential emission rates of the permanent units that they are replacing.  Temporary engines may be used on site that do not replace existing equipment if the use qualifies as an insignificant activity under Minn. R. 7007.1300, subp. 2(B).	Minn. R. 7007.0800, subp. 2
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)
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
<b>MONITORING REQUIREMENTS</b>	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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

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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 required 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 Calibration: Annually calibrate all required monitoring equipment other than continuous emission and opacity monitors (requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
TESTING REQUIREMENTS	hdr
Performance Test: Conduct all performance tests in accordance with Minn. R. ch. 7017, unless otherwise noted in Tables A, B, or C.	Minn. R. ch. 7017
RECORDKEEPING, NOTIFICATIONS, AND SUBMITTALS	hdr
Recordkeeping and Reporting for Temporary Boilers and Engines: Keep the following records on-site: documentation of hours of operation of the temporary units, a statement for all periods of temporary unit operation that the replaced permanent unit is not also operating, and calculations demonstrating that emissions are less than or equal to emissions from the permanent units being replaced. Notify the Commissioner if temporary and permanent units are operated simultaneously, except as allowed by this permit. Make verbal notification within 2 days, and written notification with the semi-annual deviations report.	Minn. R. 7007.0800, subp. 2
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.  At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.  At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
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
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. ch. 7002
Record keeping: Retain all records at the stationary source or at another site where the records are readily accessible 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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

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)
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)
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 7007.1500
The permittee 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**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** GP 001 Boiler Nos. 11 & 12**Associated Items:** EU 007 Boiler 11

EU 008 Boiler 12

What to do	Why to do it
Operating Hours: less than or equal to 5352 hours/year using 12 Month Rolling Sum calculated monthly.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
By the last day of each month, record the total hours of operation of GP 001 for the previous month and calculate and record the total hours of operation of GP 001 for the previous 12-month period.	Title I Condition: recordkeeping to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 5



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** GP 002 Emergency Generators**Associated Items:** EU 013 Emergency Engine Generator 1EEG-GEN-0002

EU 014 Emergency Engine Generator 1EEG-GEN-0003

What to do	Why to do it
Operating Hours: less than or equal to 816 hours/year using 12-month Rolling Sum calculated monthly.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
By the last day of each month, record the total hours of operation of GP 002 for the previous month and calculate and record the total hours of operation of GP 002 for the previous 12-month period.	Title I Condition: recordkeeping to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 5

# TABLE A: LIMITS AND OTHER REQUIREMENTS

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** GP 003 Stockpiles, Pile Construction and Reclaim

**Associated Items:** FS 003 North Llive Coal Pile (1.3 acres)  
 FS 004 North Llive Coal Pile (1.3 acres)  
 FS 005 Coal Stacker (4500 tons/hr)  
 FS 006 Coal Silo Unloading (2400 tons/hr)  
 FS 007 Coal Reclaim Hoppers (2400 tons/hr)  
 FS 009 Western Coal Pile (Wyoming) (2.3 acres)  
 FS 010 Western Coal Pile (Montana) (2.3 acres)  
 FS 011 Coal/Coke Reclaim (500 tons/hr)

What to do	Why to do it
<p>This requirement applies individually to each source in this group.</p> <p>Stockpiles, stockpile construction and reclaiming:            (1) control fugitive particulate emissions by dust suppression methods on such operations so that fugitive particulate emission 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).</p>	<p>Minn. R. 7011.1105 (F)(1) and (2)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

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

EU 012 Ash Silo

What to do	Why to do it
MONITORING 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.	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 CEM Certification Test . 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 CEM Certification Test . 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 (12) 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 measure SO <sub>2</sub> , NO <sub>x</sub> , and CO <sub>2</sub> emissions, and exhaust gas flow rate, for each affected unit in accordance with 40 CFR Section 75.10.	40 CFR pt. 75
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
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
The Report for COMS Calibration Error Audit: due 30 days after end of each calendar half-year following COMS Certification Test	Minn. R. 7007.0800, subp. 2
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to one (1) minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one (1) minute averaging period.	Minn. R. 7007.0800, subp. 2
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five (5) years from the date of the monitoring sample, measurement or report. Records must be kept as required in Table A under the "Total Facility" subject item.	Minn. R. 7007.0800, subp. 5

# TABLE A: LIMITS AND OTHER REQUIREMENTS

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 001 Boiler 1

**Associated Items:** CE 001 Electrostatic Precipitator - High Efficiency

CE 002 Electrostatic Precipitator - High Efficiency

MR 001

MR 002

MR 003

MR 004

MR 005

SV 001

What to do	Why to do it
<b>EMISSION LIMITS</b>	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Sulfur Dioxide: less than or equal to 1.6 lbs/million Btu heat input calculated as an annual average. By January 30th of each year, compute the annual average sulfur dioxide emission rate during the previous calendar year by averaging all hourly averages recorded over the previous calendar year. Determine hourly averages from data collected in accordance with 40 CFR pt. 75, subp. B, or using the missing data substitution procedures as set out in 40 CFR pt. 75, subp. D.	Minn. R. 7021.0050, subp. 5
Sulfur Dioxide: less than or equal to 3.0 lbs/million Btu heat input using 1-Hour Average	Minn. R. 7009.0020; meets requirements of Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
<b>OPERATIONAL REQUIREMENTS</b>	hdr
Allowed fuel types: bituminous and subbituminous coal, petroleum coke, wood, natural gas, used oil, non-hazardous petroleum-contaminated cleanup material, nonhazardous MGP waste, and cellulose-based, non-chlorinated, nonhazardous organic materials, including but not limited to paper and grain.  Manufactured Gas Plant (MGP) waste is defined as tar-contaminated materials and gas purification residuals associated with past operation of gas manufacturing plants. MGP waste includes non-hazardous materials such as contaminated soils, sediments, oxide box filler material, and wood chips.	Minn. R. 7007.0800, subp. 2
Operation of control equipment CE 001 and CE 002 is not required when EU 001 is combusting only natural gas.	Minn. R. 7007.0800, subp. 2
<b>BOILER OPERATING RATE REQUIREMENTS AND LIMITS</b>	hdr
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 limit be higher than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 2(A) and 3(B)
Boiler Operating Conditions Not Meeting the Defined Operating Conditions During Performance Testing:  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:  (1) If the results of the performance test are greater than 80% of any applicable emission limit for which emissions are measured, then boiler operation will be limited to the tested operating rate. (2) If results are less than 80% of all applicable emission limits for which emissions are measured, boiler operation will be limited to 110% of the tested operating rate. In no case will the new operating limit be higher than allowed by an existing permit condition.	Minn. R. 7017.2025, subp. 3(B)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

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Short Term Emergency and Testing (STET) Operating hours limit: 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. Documentation of all STET operation shall be maintained. The boiler must meet emission limits during STET operation.	Minn. R. 7007.0800, subp. 2
STET Operation Definition that Applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing:  If performance test results measure emissions 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.  If performance test results measure emissions at greater than 80% 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.  In no case will STET operation be higher than allowed by an existing permit condition.	Minn. R. 7007.0800, subp. 2
MONITORING REQUIREMENTS	hdr
Use the SO2 CEM to measure SO2 emissions.	Minn. R. 7017.1000, subp. 1
Use the COM to measure opacity emissions in 1-minute averages.	Minn. R. 7017.1000, subp. 1
Emissions Monitoring: measure SO2, NOx, and CO2 emissions, and exhaust gas flow rate, for each affected unit in accordance with 40 CFR Section 75.10.	40 CFR pt. 75
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.	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 CEM Certification Test . 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 CEM Certification Test . 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 (12) months.	40 CFR pt. 75, Appendix B, Section 2.3
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.	Minn. R. 7007.2020, subp. 4
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
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
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
The Report for COMS Calibration Error Audit: due 30 days after end of each calendar half-year following COMS Certification Test	Minn. R. 7007.0800, subp. 2
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to one (1) minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one (1) minute averaging period.	Minn. R. 7007.0800, subp. 2
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five (5) years from the date of the monitoring sample, measurement or report. Records must be kept as required in Table A under the "Total Facility" subject item.	Minn. R. 7007.0800, subp. 5
REQUIREMENTS FOR BURNING WASTE OR FUELS OTHER THAN COAL, WOOD, PETROLEUM COKE, OR NATURAL GAS	hdr
The feed rate of MGP waste must not exceed 2 percent of total fuel mass (total fuel mass includes the mass of MGP waste used as fuel). The combined feed rate of MGP waste, used oil, petroleum-contaminated materials, and any fuels other than coal, wood, petroleum coke, and natural gas must not exceed 5 percent of total fuel mass (total fuel mass includes the mass of all other fuels in addition to coal, wood, petroleum coke, and natural gas).	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

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Monitoring and Record Keeping: when combusting MGP waste, used oil, petroleum-contaminated materials, or any other fuels other than coal, wood, petroleum coke and natural gas, monitor and record the following:  1) the daily quantity, by weight, of MGP waste, used oil, petroleum-contaminated materials, or any other fuels mixed with coal, once each day; and  2) boiler operating capacity once each hour in pounds of steam per hour.	Minn. R. 7007.0800, subp. 2																
Minimum Operating Load: operate EU 001 at 50% or greater capacity when combusting MGP waste, used oil, petroleum-contaminated materials, or any other fuels other than coal, wood, petroleum coke, and natural gas, except that up to 2,000 pounds of on-site generated petroleum-contaminated rags may be placed in the boiler prior to startup.  If EU 001 undergoes an emergency shutdown or emergency load reduction to below 50% capacity, immediately cease adding MGP waste, used oil, petroleum-contaminated materials, or any fuels other than petroleum coke, wood, or natural gas to the coal, until EU 001 again achieves 50% capacity. Fuels already mixed with coal and enroute to the boiler prior to the emergency may be burned after the emergency with EU 001 operating at less than 50% capacity. The permittee must take all feasible and prudent steps to minimize the amount of coal mixed with other fuels, except as allowed above, which are combusted when EU 001 operates at less than 50% capacity.	Minn. R. 7007.0800, subp. 2																
Oxygen: greater than or equal to 2.7 percent by volume using a 15-minute average, measured at the CEMS oxygen monitor on SV 001, when combusting MGP waste, used oil, petroleum-contaminated materials, or any other fuels other than coal, wood, petroleum coke, and natural gas.	Minn. R. 7007.0800, subp. 2																
Manage MGP waste in accordance with a MGP Waste Management Plan which has been reviewed and approved by the Commissioner. The plan must specify how NSP will ensure that the waste is non-hazardous, how MGP waste will be delivered, stored, and transported on-site from storage to the boiler, the methods which will be used to track and ensure compliance with the maximum feed rate limit and minimum oxygen limit, and how the Permittee will ensure that optimum combustion conditions are maintained. Submit any proposed changes of the MGP Waste Management Plan to the Commissioner for review and approval prior to implementing the changes.	Minn. R. 7007.0800, subp. 2																
Do not combust waste from an MGP cleanup site unless treatment and disposal via combustion in a utility boiler is the chosen management alternative approved by the Commissioner for that site, after considering the recommendations from the MGP Remediation Advisory Committee. Notify the Commissioner at least 7 days prior to receiving MGP waste from a cleanup site from which waste has not been previously burned at the King Plant. Include in the notification the name and location of the MGP cleanup site and the name and date of the document or documents which identify the MGP waste management alternatives and the approved alternative for the site.	Minn. R. 7007.0800, subp. 2																
The concentration of the pollutants listed below in MGP waste, as measured in accordance with the approved MGP Waste Management Plan, must not exceed the following limits:  <table> <tr> <th>Pollutant</th><th>Limit (ppm)</th></tr> <tr> <td>Arsenic</td><td>12</td></tr> <tr> <td>Cadmium</td><td>20</td></tr> <tr> <td>Chromium</td><td>100</td></tr> <tr> <td>Mercury</td><td>1</td></tr> <tr> <td>Lead</td><td>100</td></tr> <tr> <td>Selenium</td><td>20</td></tr> <tr> <td>Silver</td><td>100</td></tr> </table>	Pollutant	Limit (ppm)	Arsenic	12	Cadmium	20	Chromium	100	Mercury	1	Lead	100	Selenium	20	Silver	100	Minn. R. 7007.0800, subp. 2
Pollutant	Limit (ppm)																
Arsenic	12																
Cadmium	20																
Chromium	100																
Mercury	1																
Lead	100																
Selenium	20																
Silver	100																
Comply with Minn. R. ch. 7045 for management of used oil. Maintain on-site records which demonstrate that used oil is managed as required by Minn. R. ch. 7045.	Minn. R. 7007.0800, subp. 2																
Combustion rate limit for petroleum-contaminated waste materials: Do not combust more than 1000 cubic yards per week of soils, sorbents, wood and other nonhazardous combustible materials contaminated with petroleum products. This does not include MGP waste.	Minn. R. 7007.0800, subp. 2																
<b>ACID RAIN PROGRAM REQUIREMENTS</b>	hdr																
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 January 1, 2000. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.	40 CFR Section 72.9(c)(1)(i); 40 CFR Section 72.9(g)(4)																

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

Comply with the applicable Acid Rain emissions limitation for sulfur dioxide. Takes affect January 1, 2000.	40 CFR Section 72.9(c)(1)(ii); 40 CFR Section 72.9(g)(4)														
<p>NOx Averaging Plan</p> <p>Beginning January 1, 2000 either:</p> <p>Maintain an annual average NOx emission rate of 1.05 lbs/MMBtu and limit the annual heat input to less than or equal to 34,000,000 MMBtu per year.</p> <p>OR</p> <p>Maintain a Btu-weighted annual average emission rate in lbs/MMBtu, averaged over the units specified in the NOx averaging plan, that is less than or equal to the Btu-weighted annual average emission rate averaged over the same units had they each been operated during the same period of time in compliance with the applicable emission limitations in 40 CFR Sections 76.5, 76.6, or 76.7. Units covered in the plan are:</p> <table> <tr> <td>Plant</td><td>Boiler ID#</td></tr> <tr> <td>Allen S. King</td><td>1</td></tr> <tr> <td>Black Dog</td><td>1,3,4</td></tr> <tr> <td>High Bridge</td><td>3,4,5,6</td></tr> <tr> <td>Minnesota Valley</td><td>4</td></tr> <tr> <td>Riverside</td><td>6,7,8</td></tr> <tr> <td>Sherburne County</td><td>1,2,3</td></tr> </table>	Plant	Boiler ID#	Allen S. King	1	Black Dog	1,3,4	High Bridge	3,4,5,6	Minnesota Valley	4	Riverside	6,7,8	Sherburne County	1,2,3	40 CFR Section 76.11
Plant	Boiler ID#														
Allen S. King	1														
Black Dog	1,3,4														
High Bridge	3,4,5,6														
Minnesota Valley	4														
Riverside	6,7,8														
Sherburne County	1,2,3														
Certify Acid Rain Program submittals. Each submission under the Acid Rain Program shall be submitted, signed, and certified by the designated representative or the alternative designated representative for all sources on behalf of which the submission is made in accordance with 40 CFR Section 72.21.	40 CFR Section 72.21; 40 CFR Section 72.22														
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).	40 CFR Section 72.30(c)														
Keep on site or readily accessible at another site each of the following documents for a period of 5 years from the date the document is created: the certificate of representation, all emission monitoring information, copies of all reports, compliance certifications, and other submissions or records made under the Acid Rain Program, and copies of all documents used to complete an acid rain permit application.	40 CFR Section 72.9(f)(l)														
PERFORMANCE TESTING REQUIREMENTS	hdr														
Initial Performance Test: due 180 days after Permit Issuance to measure particulate matter emissions. Record and submit a summary of data collected simultaneously by the COM for each PM test run.	Minn. R. 7017.2020, subp. 1														
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4														
Performance Test: due before end of each 60 months following Initial Performance Test to measure particulate matter emissions. The tests shall be conducted at an interval not to exceed 60 months between test dates. Record and submit a summary of data collected simultaneously by the COM for each PM test run, including opacity averages in 6-minute increments.	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) to measure particulate matter emissions.	Minn. R. 7017.2030, subp. 4														

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 002 Boiler 2**Associated Items:** SV 002

What to do	Why to do it
Sulfur Dioxide: less than or equal to 1.6 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Allowable fuel types: limited to natural gas and distillate fuel oil.	Minn. R. 7007.0800, subp. 2



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 003 Coal Gallery**Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
SV 003

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . If opacity exceeds 20 percent, then action must be taken to control exhaust gases so that either (1) particulate matter emissions do not exceed 0.020 gr/dscf, or (2) opacity does not exceed 20 percent.	Minn. R. 7011.1105 (G)
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 003). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 003) once per day on two non-consecutive days each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 003.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 004 Transfer House 1**Associated Items:** CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 005 Dust Suppression by Water Spray

SV 004

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . If opacity exceeds 20 percent, then action must be taken to control exhaust gases so that either (1) particulate matter emissions do not exceed 0.020 gr/dscf, or (2) opacity does not exceed 20 percent.	Minn. R. 7011.1105 (G)
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 004). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 004) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 004.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 005 Coal Crusher House**Associated Items:** CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
SV 005

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . If opacity exceeds 20 percent, then action must be taken to control exhaust gases so that either (1) particulate matter emissions do not exceed 0.020 gr/dscf, or (2) opacity does not exceed 20 percent.	Minn. R. 7011.1105 (G)
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 006). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 006) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 006.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 006 Railcar Unloading**Associated Items:** CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 008 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 009 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

SV 006

SV 007

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . If opacity exceeds 20 percent, then action must be taken to control exhaust gases so that either (1) particulate matter emissions do not exceed 0.020 gr/dscf, or (2) opacity does not exceed 20 percent.	Minn. R. 7011.1105 (H)
Railcar unloading: When the amount of coal unloaded by rail is 200,000 tons per year or greater, unload railcars only within a permanent building or structure.	Minn. R. 7011.1105 (H)
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 007, CE 008, and CE 009).	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 007, CE 008, and CE 009) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken. Records must be kept on an individual basis for each control equipment unit.	Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 007 Boiler 11**Associated Items:** GP 001 Boiler Nos. 11 & 12

SV 008

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.037 lbs/million Btu heat input	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
Nitrogen Oxides: less than or equal to 0.1 lbs/million Btu heat input	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
Opacity: less than or equal to 20 percent opacity	Minn. R. 7007.0800, subp. 2 (negotiated limit)
OPERATING LIMITS	hdr
Allowable fuel use: limited to natural gas and propane.	Minn. R. 7007.0800, subp. 2
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 222 days after 07/21/1998 to measure NOx emissions.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each year following Initial Performance Test to measure NOx emissions. The NOx emissions tests shall be conducted at an interval not to exceed 12 months between test dates.  If NOx emission test results are less than 90 percent of the NOx limit for two or more consecutive years, then the test frequency may be reduced to once every three years.  If a performance test measures NOx emissions at greater than 90 percent of the NOx limit, testing frequency shall revert back to the original yearly basis until the permittee is again able to meet the criteria for a three-year test frequency.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (7 days before each Performance Test)	Minn. R. 7017.2030, subp. 4

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 008 Boiler 12**Associated Items:** GP 001 Boiler Nos. 11 & 12

SV 009

What to do	Why to do it
Particulate Matter < 10 micron: less than or equal to 0.037 lbs/million Btu heat input	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
Nitrogen Oxides: less than or equal to 0.1 lbs/million Btu heat input	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21
Opacity: less than or equal to 20 percent opacity	Minn. R. 7007.0800, subp. 2 (negotiated limit)
Allowable fuel use: limited to natural gas and propane.	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 180 days after Permit Issuance to measure NOx emissions.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 36 months following Initial Performance Test to measure NOx emissions. The NOx emissions tests shall be conducted at an interval not to exceed 36 months between test dates.	Title I Condition: limit to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 36 months following Initial Performance Test (7 days before each Performance Test)	Minn. R. 7017.2030, subp. 4

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 009 Sawdust Silo**Associated Items:** CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
SV 010

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot unless 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.
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 010). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 010) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 010.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 010 Transfer House 2**Associated Items:** CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
SV 011

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.018 grains/dry standard cubic foot	Minn. R. 7007.0800, subp. 2; meets PM requirement in Minn. R. 7011.1105 (G)
Opacity: less than or equal to 20 percent opacity . If opacity exceeds 20 percent, then action must be taken to control exhaust gases so that either (1) particulate matter emissions do not exceed 0.020 gr/dscf, or (2) opacity does not exceed 20 percent. Note PM limit based on Minn. R. 7007.0800, subp. 2 that also applies to EU 010.	Minn. R. 7011.1105 (G)
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 011). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 011) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 011.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 011 Transfer House 5**Associated Items:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
SV 012

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.018 grains/dry standard cubic foot	Minn. R. 7007.0800, subp. 2; meets PM requirement in Minn. R. 7011.1105(G)
Opacity: less than 20 percent opacity	40 CFR Section 60.252(c); meets opacity requirement in Minn. R. 7011.1105(G).
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 012). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	Minn. R. 7007.0800, subp. 2
Check for visible emissions (during daylight hours) from the control equipment (CE 012) once each calendar week.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs. Corrective action may be in the form of discontinuing venting emissions to the atmosphere through CE 012.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Performance Test: due 180 days after Permit Issuance to measure opacity. The performance test must comply with the requirements of 40 CFR Sections 60.8 and 60.254.	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 012 Ash Silo**Associated Items:** CE 001 Electrostatic Precipitator - High Efficiency

CE 002 Electrostatic Precipitator - High Efficiency

SV 001

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot unless 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 A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 013 Emergency Engine Generator 1EEG-GEN-0002**Associated Items:** GP 002 Emergency Generators

SV 013

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . Opacity shall not exceed 20% for more than 10 seconds once operating temperatures have been obtained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 1.75 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Fuel type is limited to distillate fuel oil with a maximum sulfur content of 0.5% by weight.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 014 Emergency Engine Generator 1EEG-GEN-0003**Associated Items:** GP 002 Emergency Generators

SV 014

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity . Opacity shall not exceed 20% for more than 10 seconds once operating temperatures have been obtained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 1.75 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Fuel type is limited to distillate fuel oil with a maximum sulfur content of 0.5% by weight.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** EU 015 Boiler 13**Associated Items:** SV 017

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Nitrogen Oxides: less than or equal to 0.13 lbs/million Btu heat input	Minn. R. 7007.0800, subp. 2
Fuel Usage: limited to natural gas and propane	Minn. R. 7007.0800, subp. 2
Recordkeeping: By the last day of each month, record the amount of natural gas and propane combusted during the previous month in EU 017. Records may be in the form of fuel bills or meter readings.	40 CFR Section 60.13(i) to comply with 40 CFR Section 60.48c(g) and (i)
Notify: due 7 days after Startup (Written notification of startup to initiate tracking of the Initial Performance Test Requirement)	Minn. R. 7007.0800, subp. 2
Initial Performance Test: due 180 days after Startup to measure NOx emissions.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** FS 001 Barge Coal Unloading (4500 tons/hr)**Associated Items:** CE 013 Dust Suppression by Water Spray

What to do	Why to do it
Barge or vessel unloading station: cranes, shovels, and conveyors shall be operated in a manner which decreases as much as practical the vertical free fall of coal. Control fugitive particulate emissions during unloading so that fugitive emissions are minimized.	Minn. R. 7011.1105 (D)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

**Subject Item:** FS 012 Coal Yard Traffic (15 trips/hr; 0.64 miles/trip)**Associated Items:** CE 013 Dust Suppression by Water Spray

What to do	Why to do it
Access areas, roads, parking facilities (1) Install asphalt or concrete surfaces or chemical agents on all active truck haul roads of the coal handling facility when the coal throughput by truck is 200,000 tons or greater. All paved roads and areas shall be cleaned to minimize the discharge to the atmosphere of fugitive particulate emissions. Such cleaning shall be accomplished in a manner which minimizes resuspension of particulate matter. Access areas surrounding coal stockpiles and parking facilities which are located within a coal handling facility shall be treated with water, oils, or chemical agents.	Minn. R. 7011.1105 (A)

## TABLE B: SUBMITTALS

03/05/99

Facility Name: NSP - Allen S King Gen  
Permit Number: 16300005 - 002

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

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

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

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

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

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

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak  
Air and Radiation Branch  
EPA Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604

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

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



**TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

What to send	When to send	Portion of Facility Affected
Acid Rain Permit Application for NOx	due before 01/01/98 in accordance with 40 CFR Section 76.9(b)(2).	EU001
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance for PM-10, SO <sub>2</sub> , and NO <sub>x</sub> . 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.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance	Total Facility
Fugitive Control Plan	due 60 days after Permit Issuance for review and approval by the Commissioner. The plan must identify all fugitive emission sources, and primary and contingent control measures. The control measures included in the plan must include the requirements of Minn. R. 7011.1105.	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test	EU001, EU007, EU008, EU015
Performance Test Notification (written)	due 30 days before Performance Test	EU011
Performance Test Plan	due 30 days before Initial Performance Test	EU001, EU007, EU008, EU015
Performance Test Plan	due 30 days before Performance Test	EU011
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test	EU001, EU007, EU008, EU015
Performance Test Report - Microfiche Copy	due 105 days after Performance Test	EU011
Performance Test Report	due 45 days after Initial Performance Test	EU001, EU007, EU008, EU015
Performance Test Report	due 45 days after Performance Test	EU011
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA)	EU001, SV001
Testing Frequency Plan	due 60 days after Initial Performance Test for NO <sub>x</sub> . The plan shall specify a testing frequency based on the initial performance test data and MPCA performance test frequency 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.	EU015

**TABLE B: RECURRENT SUBMITTALS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following 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.	EU001, 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.	EU001, SV001
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA)	EU001, SV001
Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first report covers January 1 - June 30. The second report 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 an annual compliance certification report for the unit in accordance with 40 CFR Section 72.90(a). The report shall include all information required by 40 CFR Sections 72.90(b) and 72.90(c)	EU001
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance . This is the annual compliance certification report, covering all deviations experienced during the calendar year.	Total Facility
Performance Test Notification (written)	due 30 days before end of each year following Initial Performance Test (30 days before each performance test).  If the NOx emissions test frequency is reduced from annual to once every three years, the permittee shall submit a notification in lieu of each annual test, 30 days before the date that testing was required to be conducted. The notification shall state the percentage of the NOx emission limit that emissions were measured at during each of the previous two performance tests.	EU007
Performance Test Plan	due 30 days before end of each year following Initial Performance Test (30 days before each Performance Test)	EU007
Performance Test Report - Microfiche Copy	due 105 days after end of each year following Initial Performance Test (105 days after each Performance Test)	EU007
Performance Test Report	due 45 days after end of each year following Initial Performance Test (45 days after each Performance Test)	EU007
Performance Test Notification (written)	due 30 days before end of each 36 months following Initial Performance Test (30 days before each performance test)	EU008
Performance Test Plan	due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test)	EU008
Performance Test Report - Microfiche Copy	due 105 days after end of each 36 months following Initial Performance Test (105 days after each Performance Test)	EU008
Performance Test Report	due 45 days after end of each 36 months following Initial Performance Test (45 days after each Performance Test)	EU008
Performance Test Notification (written)	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure particulate matter emissions.	EU001

**TABLE B: RECURRENT SUBMITTALS**

03/05/99

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005 - 002

Performance Test Plan	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure particulate matter emissions.	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) to measure particulate matter emissions.	EU001
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test) to measure particulate matter emissions.	EU001

## APPENDIX MATERIAL

Facility Name: NSP - Allen S King Gen

Permit Number: 16300005-002

# Phase II NO<sub>x</sub> Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is:

☒

New

☐

Revised

<b>Step 1</b> Indicate plant name, State, and ORIS code from NADB, if applicable	Allen S. King	MN	1915
	Plant Name	State	ORIS Code

**Step 2** Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: “CB” for cell burner, “CY” for cyclone, “DBW” for dry bottom wall-fired, “T” for tangetially fired, “V” for vertically fired, and “WB” for wet bottom. Indicate the compliance option selected for each unit

ID# 1	ID#	ID#	ID#	ID#	ID#
CY					
Type	Type	Type	Type	Type	Type

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for <u>Phase I</u> dry bottom wall-fired boilers)						
(b) Standard annual average emission limitation of						

<b>0.45 lb/mmBtu (for <u>Phase I</u> tangentially fired boilers)</b>						
<b>(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)</b>						
<b>(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for <u>Phase II</u> dry bottom wall-fired boilers)</b>						
<b>(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for <u>Phase II</u> tangentially fired boilers)</b>						
<b>(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)</b>						
<b>(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)</b>						
<b>(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)</b>						
<b>(i) Standard annual</b>						

<b>average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)</b>						
<b>(j) NOx Averaging Plan (include NOx Averaging form)</b>	X					
<b>(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack</b>						
<b>(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NOx Averaging (check the NOx Averaging Plan box and include NOx Averaging form)</b>						
<b>(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)</b>						
<b>(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)</b>						
<b>(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period</b>						

ongoing						
(p) Repowering extension plan approved or under review						

#### Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

#### Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO<sub>x</sub> as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO<sub>x</sub> for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO<sub>x</sub> for Phase II units with Group 1 boilers under 40 CFR 76.7.

## Phase II NO<sub>x</sub> Averaging Plan

**For more information, see instructions and refer to 40 CFR 76.11**

This submission is:

New

☐
☒

Revised

### Step 1

Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Allen S. King	MN	1	0.86	1.05	34,000.000
Black Dog	MN	1	0.40	0.81	2,094.000
Black Dog	MN	3	0.46	0.81	5,685.000
Black Dog	MN	4	0.46	0.81	11,036.000
High Bridge	MN	3	0.50	0.60	1,771.500
High Bridge	MN	4	0.50	0.60	1,771.500
High Bridge	MN	5	0.50	0.60	5,037.000
High Bridge	MN	6	0.50	0.60	10,313.000
Minnesota Valley	MN	4	0.46	0.47	1,189.000
Riverside	MN	6	0.46	0.85	4,324.500
Riverside	MN	7	0.46	0.85	4,324.500
Riverside	MN	8	0.86	0.82	10,821.000
Sherburne County	MN	1	0.45	0.28	42,255.000
Sherburne County	MN	2	0.45	0.28	42,255.000
Sherburne County	MN	3	0.46	0.35	34,912.000

### Step 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan

Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6, or 76.7



0.54

0.54

$$\frac{\sum_{i=1}^n (R_{Li} \times HI_i)}{\sum_{i=1}^n HI_i} \leq \frac{\sum_{i=1}^n [R_{li} \times HI_i]}{\sum_{i=1}^n HI_i}$$

Where,

$R_{Li}$  = Alternative contemporaneous annual emission limitation unit i, in lb/mmBtu, as specified in column (b) of Step 1:

$R_{li}$  = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1:

$HI_i$  = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1:

$n$  = Number of units in the averaging plan

☒ This plan is effective for calendar year 2000 through calendar year 2004 unless notification to terminate the plan is given.

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years           ,           ,           ,           , and            unless notification to terminate one or more of these plans is given.

Special Provisions

#### Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO<sub>x</sub> under the plan only if the following requirements are met:

- (i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and

- (a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
- (b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- (ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
- (iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

#### Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

#### Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

## Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is ☒ New ☐ Revised

Allen S. King	MN	1915
Plant Name	State	ORIS Code

**Compliance  
Plan**

a Boiler ID#	b Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	c Repowering Plan	d New Units Commence Operation Date	e New Units Monitor Certification Deadline
1	Yes	no		
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**Standard Requirements**

**Permit Requirements.**

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

#### Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR parts 74, 75, and 76.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR parts 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### Excess Emissions Requirements.

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

#### Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit

application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 16300005-002**

This Technical Support Document (TSD) 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 (list both if different)	Facility Address (SIC Code: 4911)
Northern States Power Company 414 Nicollet Mall Minneapolis, Minnesota 55401-1927	1103 King Plant Road Bayport Washington County

1.2. Description Of The Facility

The Allen S. King Plant is a coal-fired electric utility located on Highway 95 in Oak Park Heights, Minnesota; the facility's mailing address is in Bayport. The facility's emission units consist of boilers, fuel and ash storage and handling equipment, and emergency diesel engines. The facility's main power boiler (Boiler No. 1) is a coal-fired cyclone boiler with a generating capacity of 550 megawatts (MW) of electricity. Pollution control equipment on the main boiler consists of an electrostatic precipitator to control Particulate Matter (PM) emissions. Emissions from fuel and ash storage and handling equipment which are potential sources of PM emissions are controlled using water and other dust suppressants, enclosures, and/or fabric filters.

1.3 Description of the Activities Allowed By This Permit Action

The focus of this amendment is the addition of the Nitrogen Oxides (NO<sub>x</sub>) requirements to the Phase II Acid Rain portion of the Title V operating permit. The requirements state that power Boiler 1 shall limit NO<sub>x</sub> emissions in a manner consistent with the NO<sub>x</sub> averaging plan application (see attached). A few administrative changes were made to the permit to bring it current with the latest rule changes. The administrative changes consist of wording amendments to the Shutdown, Breakdown and Deviations Endangering Human Health language on the Total Facility pages and the opacity language for each boiler subject to only the state opacity rule.

1.4. Facility Emissions:

Emissions are not directly effected by this amendment.

Permit Action Number:  
Date: 3/5/2004

Table 1. Permit Action Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)			
NAAR (list pollutant)			
Part 70 Permit Program (list pollutant)	X		

\* 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

*The purpose of this table is to give an overview of the new/modified sources of emissions and the applicable regulations and standards. It is not designed for the discussion of specific limits, unless they are unusual and need some explanation, nor is it for the discussion of compliance demonstration requirements. This information is obtainable from the permit, but this section provides users in the future with a quick overview of the modification and its effect on the permit.*

Table 2. Regulatory Overview

*EU, GRP, or SV #	Applicable Regulations	**Comments
EU001	40 CFR § 76.11	NO <sub>x</sub> averaging plan used to keep plan wide average emissions at or below the individual boiler emissions for the boilers in the plan.

\* Insert the number that identifies the level the limit was set on.

\*\* Comments column is for citations that need further explanation only. Most rows should not have any further explanation needed.

## 3. Technical Information

The NO<sub>x</sub> averaging plan proposes alternative NO<sub>x</sub> emission rates and annual heat inputs for Boilers 1 at the Alan S. King plant, 1, 3, 4 at the Black Dog plant, 3, 4, 5, 6 at the High Bridge plant, 4 at the Minnesota Valley plant, 6, 7, 8 at the Riverside plant and 1, 2, 3 at the Sherburne County plant. These emission rates and annual heat inputs are equivalent to the lb/MMBtu emission rate if all boilers were to meet their own Phase II NO<sub>x</sub> emission rate at the proposed annual heat input.

Permit Action Number:

Date: 3/5/2004

#### **4. Conclusion**

Based on the information provided by Northern States Power Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 16300005-002 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: Daren K. Zigich

Attachment: CD-01 Forms  
NO<sub>x</sub> Compliance and Averaging Plan

Permit Action Number:  
Date: 3/5/2004