

AIR EMISSION PERMIT NO. 16300005- 008

IS ISSUED TO

Northern States Power Company d/b/a Xcel Energy

XCEL ENERGY - ALLEN S. KING GENERATING PLANT

Highway 95 & Point Road
Oak Park Heights, Washington County, MN 55082

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

Permit Type	Application Date	Issue Date	Action #
Title V Reissuance	January 17, 2003	March 28, 2005	005
Administrative Amendment	January 13, 2006	March 2, 2006	006
Major Amendment	August 21, 2006	February 27, 2007	007
Administrative Amendment	October 1, 2007	See below	008
Major Amendment	December 7, 2007	See below	008

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 are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/NSR Authorization
Issue Date: 03/28/2005
Expiration: 02/22/2010
All Title I Conditions do not expire.

Major Amendment
Issue Date: 03/19/2008

Jeff J. Smith, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Table C: not used in this permit

Appendix A: not used in this permit

Appendix B: GP005 Calculations

Appendix C: PM₁₀ Modeling Parameters

Appendix D: Insignificant Activities

Appendix E: Acid Rain Forms

NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

The Allen S. King Generating Plant (King Plant) is a coal-fired electric utility located on Highway 95 in Oak Park Heights, Minnesota. The facility's emission sources 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.

Permit action 005 authorized modification of the King Plant. The Rehabilitation Project included the installation of new pollution control equipment, modification of the plant heat rejection system, and rehabilitation and life extension of the main (EU001, coal-fired) boiler. The rehabilitation will allow the plant to operate at a capacity approaching its original design rating.

The boiler rehabilitation consisted of:

- Replacement of the furnace floor and support system.
- Installation of new cyclone burners and re-entrant throats.
- Replace furnace sidewalls and furnace floor tubes.
- Installation of induced draft fans to accommodate additional draft requirements of new control equipment.

The new (additional) control equipment consists of:

- Selective Catalytic Reduction (SCR) reactor for control of NO_x emissions.
- Spray dryer absorber lime-based semi-dry Flue Gas Desulfurization (FGD) system for control of SO₂ emissions
- Pulse-Jet cleaned Fabric Filter (PJFF) for additional control of PM.

The rehabilitation project authorized by permit action 005 also involved decommissioning and removal of one existing auxiliary boiler, replacing it with a new auxiliary boiler.

AMENDMENT DESCRIPTIONS

Permit Action 006, issued March 2, 2006

This administrative amendment granted the Permittee an extension of up to 120 days to complete performance testing on EU007. The new due date is May 14, 2006, which is 120 days beyond the original due date of January 14, 2006. This one-time extension is granted per Minn. R. 7007.1400. The next subsequent test shall be performed no later than 12 or 36 months after January 14, 2006, dependent on the test results from winter 2006.

In addition to extending the performance test due date, Permit Number 16300005-006 made the following updates to the previously issued permit:

- Citations throughout the permit were updated to include both a Federal and State Rule where applicable.
- Citations regarding Title I were updated to use language consistent with Air Permitting Policy.
- FS-0015 was retired and references to the unit throughout the permit were removed.
- For EU 001, clean unit citations were removed when dually cited with another rule, and that other rule is still applicable. Clean unit requirements were completely removed when it was the only basis for the permit requirement.

Permit Action 007, issued February 27, 2007

This major permit amendment granted the Permittee the following:

1. **EU 001** – Clarified that first firing is intended to refer to the first firing with permitted fuels other than natural gas. The definition of startup and shutdown for boiler EU001 was added since it affects the ability to operate the SCR and the SDA.
2. **SCR (CE015) and SDA (CE016)** – Because of the operating temperatures associated with the ability to operate the SCR and SDA, the MPCA is adding a provision to the permit that clarifies that the SCR and SDA are not required to be operated during startup and shutdown of EU001. What constitutes startup and shutdown of EU001 is defined in the permit. All Title I emission limits remain applicable during periods of startup, shutdown, and malfunction.

3. **Operation of Fabric Filter (CE017)** – The mandatory operation of the fabric filter (CE017) associated with boiler EU 001 in lieu of operating the existing electrostatic precipitators (ESP) (CE001 and CE002), is not required until the effective date of the total particulate emission limit (270 days after the first firing of the boiler EU001 with fuels other than natural gas following rehabilitation). The permit still requires that either the ESPs, or the fabric filter, are operated after the first firing of the boiler with fuels other than natural gas following the rehabilitation project.
4. **Removal of Hours of Operation Limit for GP 008 Emission Units**
5. **Removal of Emission Units** – Design changes since the original permit issuance have resulted in the elimination of the duct burner (EU030) and ammonia vaporizer (EU031) as emission units. References to these emission units were removed from the draft permit.
6. **Permit Language** – The language for compliance with Boiler MACT for the auxiliary boiler (EU028) was updated to incorporate changes in the regulation since the issuance of the initial permit.
7. **Changes to Ash Silo** – The permit will be updated to acknowledge that the fly-ash silo (EU012) now has a dedicated fabric filter (CE026) and its own stack (SV036), as opposed to venting through the main boiler stack, as it was previously permitted.
8. **Mercury Monitoring and Testing** – Xcel Energy will be operating a continuous emission monitor (CEM) to measure the mercury emissions from EU001 as a requirement of the Minnesota Mercury Reduction Act of 2006. Permit conditions for the operation of the CEM have been added to the draft permit. Because of the installation of the mercury CEM, it is no longer necessary to perform annual stack tests on mercury emissions after the initial performance test is completed.
9. **Installation of SCR Ash Bin Vent** – Installation of SCR ash bin and vent (EU039/SV037).
10. **Removal of Redundancy** – Language for Performance Test Notifications and Submittals in the original permit was located in the total facility requirements section as well as GP004, EU004, EU006, EU007, EU011, and EU028. The draft permit contains this language only in the total facility requirements in order to remove the redundant permit conditions.

Permit Action 008 (this permit action)

This major amendment authorizes changes requested in two separate permit applications: an administrative amendment application received on October 2, 2007; and a major amendment application received on December 11, 2007. The following changes are authorized:

EU001

- Extended the deadline for applicability of the NO_x limit by 180 days, from 270 days to 450 days after initial startup, because the shakedown period for the rehabilitation project is taking longer than expected;

- Extended the deadline for applicability of the SO₂ Title I limit of by 180 days, from 270 days to 450 days after initial startup, because the shakedown period for the rehabilitation project is taking longer than expected;
- Clarified that the PM limit of 0.015 lb/MMBtu heat input only applies when the fabric filter is in use, which can only be when the flue gas temperature at the inlet to the filter is 190 degrees Fahrenheit or greater;
- Clarified that the PM₁₀ limit of 0.030 lb/MMBtu heat input only applies when the fabric filter is in use, which can only be when the flue gas temperature at the inlet to the filter is 190 degrees Fahrenheit or greater;
- Extended the deadline for continuous use of CE015 SCR system by 180 days, from 270 days to 450 days after initial startup;
- Extended the deadline for continuous use of CE016 (spray dryer) by 180 days, from 270 days to 450 days after initial startup;
- Clarified that the fabric filter need only be operated when the flue gas temperature is at least 190 degrees Fahrenheit;
- Removed requirement for performance testing to measure ammonia slip, since that has been completed;
- Deleted language explaining what is meant by “Initial startup” since the actual date of initial startup has already been reported and inserted into the permit as a trigger date; and
- Removed requirement for notification of actual date of initial startup, because that has already been submitted.

CE015

- Extended the deadline by which the SCR must be in continuous use by 180 days, from 270 to 450 days after first firing;
- Revised language for determining normal operating range of ammonia injection from “during the first 180 days of operation” to “during the first 180 operating days of required operation,” since operating problems have prohibited getting this information during the 180 consecutive days immediately following startup.

CE016

- Extended the deadline by which the spray dryer must be in continuous use by 180 days, from 270 to 450 days after first firing;
- Revised language for determining normal operating range from “during the first 180 days of operation” to “during the first 180 operating days of required operation,” since operating problems have prohibited getting this information during the 180 consecutive days immediately following startup.

CE017

- Clarified that the fabric filter need only be operated when the flue gas temperature is at least 190 degrees Fahrenheit.

EU028

- Removed requirements associated with notification of start of construction, start of operation, and notification of intent to construct;
- Changed “initial performance test” for carbon monoxide (CO) to a requirement for “performance test” annually, with a 2007-only 120 day extension;
- Changed citations associated with CO compliance test from the 40 CFR pt. 60 Subpart DDDDD (Industrial Boiler NESHAP) citation to Minnesota Rules citations, since we can not amend NESHAP requirements and also because the NESHAP has been vacated;

EU007, EU008, EU015, GP001

- Removed all requirements from the permit, since these boilers have been decommissioned effective August 31, 2007.

FS017

- Removed requirement for notification of date of startup, since this has been completed;
- Added Industrial Process Equipment Rule limit to FS017, because somehow this disappeared in the current permit.

EU004, EU006, EU011

- Removed requirements for notifications of date of construction and date of startup, because these have already been submitted.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-1**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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

Subject Item: Total Facility

What to do	Why to do it
A. OPERATIONAL LIMITS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010 - 7009.0080
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. The plan may be amended by the Permittee, but must include the minimum fugitive control requirements specified within this permit. Keep records of changes made to the fugitive control plan, including the date and nature of changes made. 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. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7009.0020; Minn. R. 7011.0150
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
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O&M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. Keep records of all changes made to the O&M Plan, including the date and nature of the change.	Minn. R. 7007.0800, subps. 14 & 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
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.	Minn. R. 7007.0800, subp. 2
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).	
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, subps. 2 & 16(J)
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
B. MONITORING REQUIREMENTS	hdr
Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, monitoring a process or control equipment connected to that process is not 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)
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	Minn. R. 7017.1090
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130
C. TESTING REQUIREMENTS	hdr
Performance Test: Conduct all performance tests in accordance with Minn. R. ch. 7017, unless otherwise noted in Tables A or B.	Minn. R. ch. 7017
Performance Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4; Minn. R. 7017.2035, subps. 1-2
CEMS Certification Test Notification and Submittals: CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy or CD: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2	Minn. R. 7017.1060, subps. 1-3; Minn. R. 7017.1080, subps. 1-4
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025, subp. 3
D. DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>These requirements apply where there is a reasonable possibility that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project.</p> <p>Even though a particular modification is not subject to New Source Review, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000</p>
<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following information:</p> <ol style="list-style-type: none"> 1. A description of the project 2. Identification of the emission unit(s) whose emissions of an NSR pollutant could be affected 3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the potential emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the unit(s) could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. <p>The Permittee shall maintain records of this documentation.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>Before beginning actual construction of any project which includes any electric utility steam generating unit (EUSGU), the Permittee shall submit a copy of the preconstruction documentation (items 1-3 under Preconstruction Documentation, above) to the Agency.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>For any project which includes any EUSGU, the Permittee must submit an annual report to the Agency, within 60 days after the end of the calendar year. The report shall contain:</p> <ol style="list-style-type: none"> a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The quantified annual emissions analyzed using the ATPA test, plus the potential emissions associated with the same project and analyzed using potential emissions c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection, if that is the case 	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>For any project which does not include any EUSGU, the Permittee must submit a report to the Agency if the annual summed (actual plus potential, if applicable) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <ol style="list-style-type: none"> a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual plus potential, if any part of the project was analyzed using potential emissions) for each pollutant for which the preconstruction projection and significant emissions rate is exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. 	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>E. OTHER RECORDKEEPING, NOTIFICATIONS, AND SUBMITTALS</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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 Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. ch. 7002
Recordkeeping: 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)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
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 - 7007.1500
F. CRITERIA POLLUTANT MODELING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-5**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>Parameters Used in Modeling: The parameters used in the PM10 modeling performed for determining emission and/or operational limits are listed in Appendix C of this permit. If the Permittee intends to change any of these parameters, the Permittee must submit the revised parameters to the Commissioner and receive written approval before making any changes. The revised parameter information submittal must include, but is not limited to: the locations, heights and diameters of the stacks; locations and dimensions of nearby buildings; velocity and temperatures of the gases emitted; and the emission rates. The plume dispersion characteristics due to the parameter revisions must equal or exceed the dispersion characteristics modeled for this permit, and the Permittee shall demonstrate this in the proposal.</p>	<p>Minn. R. 7009.0020 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)</p>
<p>Parameters Used in Modeling (continued): If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.</p> <p>For changes that do not involve an increase in PM10 emission rates, and/or that do not require a permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter.</p> <p>For changes involving increases in PM10 emission rates and that require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter.</p> <p>For changes involving increases in PM10 emission rates and that require a permit amendment other than a minor amendment, the proposal must be submitted prior to or with the permit amendment application.</p>	<p>Minn. R. 7009.0020 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-6**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This limit applies individually to each unit listed in GP 002.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity . Opacity shall not exceed 20% for more than 10 seconds once operating temperatures have been achieved. This limit applies individually to each unit listed in GP 002.	Minn. R. 7011.2300, subp. 1
Operating Hours: less than or equal to 816 hours/year using 12-month Rolling Sum calculated monthly, for the GP 002 generators combined.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Fuel type is limited to distillate oil with a maximum sulfur content of 0.5% by weight.	Minn. R. 7007.0800, subp. 2
B. RECORDKEEPING REQUIREMENTS	hdr
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: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 5
Maintain records showing the sulfur content of all fuel oil combusted in the GP 002 generators.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 003 Coal Handling and Coal Yard Traffic - Limited Operation**Associated Items:** FS 002 Petroleum Coke Storage Pile (Inactive, reactivation will require new modeling demonstration)

FS 005 Coal Stacker

FS 006 Coal Silo Unloading

FS 007 Coal Reclaim Hoppers

FS 009 Coal Pile A

FS 010 Coal Pile B

FS 012 Coal Yard Traffic (Unpaved roads & driving on coal)

FS 013 Paved Road Traffic

FS 014 Petroleum Coke Unloading Station (Inactive, reactivation will require new modeling demonstration)

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:</p> <ol style="list-style-type: none">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).	Minn. R. 7011.1105, subps. (F)(1) & (2)
Coal/Coke Handling Operating Hours: Limited to 6:00 a.m. through 8:00 p.m.	Minn. R. 7009.0020
Recordkeeping: The Permittee is required to keep a log of daily Coal/Coke Handling Operating Hours.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-8**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 004 Flite Conveyors (NSPS Subpart Y)**Associated Items:** CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 016 East Flite Conveyor (AFC-2A)

EU 017 East Flite Conveyor (AFC-2B)

EU 018 West Flite Conveyor (AFC-1A)

EU 019 West Flite Conveyor (AFC-1B)

SV 018 Flite Conveyor Dust Collector

What to do	Why to do it
A. EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.02 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G(1)
Opacity: less than or equal to 20 percent opacity	40 CFR Section 60.252(c); Minn. R. 7011.1150; Minn. R. 7011.1105, subp. G(2)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot	Minn. R. 7009.0020
B. OPERATIONAL LIMITS	hdr
Air Flow Rate: less than or equal to 16,000 actual cubic feet/minute . The Permittee shall keep the baghouse system design specifications showing the calculated maximum airflow on site.	Minn. R. 7005.0100, subp. 35a
Visible Emissions: The Permittee shall check the fabric filter stack (SV 018) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Minn. R. 7007.0800, subp. 2
C. MONITORING AND RECORDKEEPING	hdr
Pressure Drop: After the fabric filter has been in service for one week and before the end of first month, the Permittee shall observe the normal operating pressure drop and record it in the facility's O&M Plan.	Minn. R. 7007.0800, subp. 4
Monitoring Equipment: The Permittee shall install and maintain necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions and Pressure Drop (during inclement weather only): The Permittee shall record the time and date of each visible emission inspection/pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop (during inclement weather only) was within the range specified in the facility's O&M Plan.	Minn. R. 7007.0800, subp. 5
Operation and Maintenance: The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).	Minn. R. 7011.0075, subp. 2
Operation of Control Equipment: The control equipment is considered listed control equipment under Minn. R. 7011.0060 to 7011.0080.	Minn. R. 7007.0800, subp. 2
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by pollution control equipment (CE 014). This emission unit is physically capable of operating without venting to the atmosphere, and therefore can operate when control equipment is not operational.	
Corrective Actions: The Permittee shall follow the O&M Plan for the fabric filter and take corrective action as soon as possible (within 24 hours) if any of the following occur: - Visible emissions are observed; - The recorded pressure drop is outside the required operating range; or - The fabric filter or any of its components are found during the inspections to need repair. The Permittee shall keep a record of the type and date of any corrective action taken for the fabric filter.	Minn. R. 7007.0800, subps. 4, 5, & 14
D. PERFORMANCE TESTING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Initial Performance Test: due 180 days after Initial Startup of EU 017 to measure Opacity. (Note: testing was completed on SV 018 for EU 016 and EU 019 on August 20, 2004.)	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4
Performance Test Pre-test Meeting: due 7 days before each performance test.	
Initial Performance Test: due 180 days after Initial Startup of EU 018 to measure Opacity. (Note: testing was completed on SV 018 for EU 016 and EU 019 on August 20, 2004.)	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4
Performance Test Pre-test Meeting: due 7 days before each performance test.	
E. NSPS GENERAL PROVISIONS - APPLICABLE TO EU 016, EU 017, EU 018, and EU 019 ONLY	hdr
Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced within 180 days of completion of any physical or operational change subject to the control measures specified in 60.14(a), compliance with all applicable standards must be achieved. (Note: Notifications have been received for EU 016 and EU 019 and construction completed as described in the TSD for Air Emission Permit 16300005-004.)	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 days prior to observation date. (Note: Testing notification for testing on SV 018 for EU 016 and EU 019 was completed on July 20, 2004. Testing was completed on SV 018 for EU 016 and EU 019 on August 20, 2004.)	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years.	40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
Opacity Compliance: Demonstrate compliance with Opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015
No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 005 Synthetic Minor Fuel Usage Limits**Associated Items:** EU 001 Boiler 1

EU 028 Auxiliary Boiler

What to do	Why to do it
A. EMISSION & OPERATING LIMITS	hdr
The Permittee shall comply with EITHER the Tier 1 limits (all of the limits listed under Tier 1) OR the Tier 2 limits (all of the limits listed under Tier 2). Compliance with either set of limits is adequate, it is not necessary to comply with both sets of limits simultaneously.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
A.1. Tier I Limits	hdr
EU028 Natural Gas Fuel Usage: less than or equal to 380.95 million cubic feet/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
EU028 Fuel Oil Fuel Usage: less than or equal to 500000 gallons/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
A.2. Tier 2 Limits	hdr
Volatile Organic Compounds: less than or equal to 132.7 tons/year using 12-month Rolling Sum for both units listed under GP 005, combined, calculated using Equation B.1 in Appendix B of this permit.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Fuel Usage: less than or equal to 1750000 gallons/year using 12-month Rolling Sum of fuel oil used in EU 028, using the following calculation: $F(028) = 500,000 \text{ gal} + [1,250,000 \text{ gal} \times ((8760 - \text{HMB})/2000)]$ where: HMB = 12-month rolling sum of main boiler (EU 001) operating hours during which EU 003, EU 005, EU 010, and EU 016 are also presumed to be operating. (Recordkeeping is not required if the 12-month Rolling Sum of fuel oil used in EU 028 is less than 500,000 gal.)	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
B. RECORDKEEPING	hdr
Maintain paper or electronic copies, for a period of 5 years, of the applicable records below	Minn. R. 7007.0800, subp. 5
B.1 Tier I Recordkeeping Requirements	hdr
Each day, record the quantity and heat content of each type of fuel combusted in EU 028. Or Be able to extract that information for each day of the previous month, based on operating records, by the 15th day of each month.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
By the 15th day of each month, calculate and record the 12-month rolling sum of fuel oil combusted in EU 028, for the previous 12 months.	Minn. R. 7007.0800, subps. 4 & 5
By the 15th day of each month, calculate and record the 12-month rolling sum of natural gas combusted in EU 028, for the previous 12 months.	Minn. R. 7007.0800, subps. 4 & 5
B.2 Tier 2 Recordkeeping Requirements	hdr
Each day, record the operating hours for EU 001, and the number of those hours during which EU 003, EU 005, EU 010, and/or EU 016 were also operating (HMB). (Recordkeeping is not required if the 12-month Rolling Sum of fuel oil used in EU 028 is less than 500,000 gal.)	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Each day, record the quantity and heat content of each type of fuel combusted in each of the 2 units listed in GP 005. OR Be able to extract that information for each day of the previous month, based on operating records, by the 15th day of each month.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-11**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

By the 15th day of each month, calculate and record the following: - The monthly and 12-month rolling sum of the main boiler (EU 001) operating hours during which EU 003, EU 005, EU 010, and/or EU 016 were also operating. (Recordkeeping is not required if the 12-month Rolling Sum of fuel oil used in EU 028 is less than 500,000 gal.) - The monthly and 12-month rolling sum of the EU 028 fuel oil usage using the equation specified within the Tier 2 limit.	Minn. R. 7007.0800, subps. 4 & 5
By the 15th day of each month, calculate and record the monthly and 12-month rolling sum of VOC emissions, using the calculation method described within the Tier 2 limit.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-12**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 007 Lime Handling & Storage**Associated Items:** EU 032 Lime Silo Day Bin

EU 033 Lime Storage Silo

What to do	Why to do it
A. EMISSION AND OPERATING LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies individually to each unit listed in GP 007.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Meets requirements of Minn. R. 7011.0735
Particulate Matter < 10 micron: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies individually to each unit listed in GP 007.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715
Operating Hours: less than or equal to 5096 hours/year using 12-month Rolling Sum for each unit listed in GP 007.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
B. CONTROL REQUIREMENTS - see GP 009	hdr
C. RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping: Each day, record the total number of hours that each unit listed under GP 007 operated during the previous day.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Monthly Recordkeeping: By the 15th day of each month, calculate and record the total number of hours each unit in GP 007 operated during the previous month, and during the previous 12 months.	Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 008 FGD Byproduct/Fly Ash Handling & Storage**Associated Items:** EU 012 Ash Silo

EU 034 FGD Byproduct/Fly Ash Storage Silo

EU 035 Recycle Ash Storage Silo

EU 036 Recycle Ash Storage Silo

EU 037 Economizer Ash Surge Hopper

EU 039 SCR Inlet Ash Surge Hopper

What to do	Why to do it
A. EMISSION AND OPERATING LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies individually to each unit listed in GP 008.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Meets requirements of Minn. R. 7011.0735
Particulate Matter < 10 micron: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies individually to each unit listed in GP 008.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Meets requirements of Minn. R. 7011.0735
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715
B. CONTROL REQUIREMENTS - see GP 009	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-14**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 009 Lime, FGD Byproduct/Fly Ash Fabric Filters**Associated Items:** CE 018 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 019 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 020 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 022 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 023 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 026 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

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

What to do	Why to do it
A. OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain each fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14
The Permittee shall operate and maintain each fabric filter in accordance with the Operation and Maintenance (O&M) Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop of each fabric filter once every 24 hours when in operation.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14
B. RECORDKEEPING AND MONITORING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: At least semiannually, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subps. 4, 5 & 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - Visible emissions are observed; - The recorded pressure drop is outside the required operating range; or - The fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subps. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-15**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: GP 010 Areas Served by Watering Truck**Associated Items:** CE 013 Water Application - truck

FS 002 Petroleum Coke Storage Pile (Inactive, reactivation will require new modeling demonstration)

FS 009 Coal Pile A

FS 010 Coal Pile B

FS 011 Coal/Coke Reclaim

FS 012 Coal Yard Traffic (Unpaved roads & driving on coal)

FS 013 Paved Road Traffic

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, subp. (A)
The Permittee shall water the unpaved roads (including all routes where vehicles are driven on coal) at the facility. Watering shall comply with the following conditions: a. The water application rate shall be at least 3 gallons for each 100 square feet every 24 hours. b. A rainfall of at least 0.1 inch during the previous 24 hours shall substitute for one water application, unless the storage pile moisture content is rated as "dry." c. If unpaved roads cannot be watered because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35 degrees F (1.7C) or conditions due to weather, in combination with the application of water, could create hazardous driving conditions, then watering shall be postponed and accomplished as soon as the conditions preventing water application have abated.	Minn. R. 7009.0020 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)
d. Water application is not required on days when there is no vehicle traffic. e. Water application is not required when the daily qualitative assessment of the moisture content of the coal piles is "wet." f. Following any day when water is not applied based on the absence of traffic, water shall be applied within 3 hours of commencement of vehicle traffic, unless another criterion for not watering is met.	Minn. R. 7009.0020 (cont. from above) (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)
Daily Recordkeeping: The Permittee shall keep records of the water applications, including the following: a. The daily qualitative assessment of the moisture content of coal piles where vehicles are driven. b. The roads watered, the amount of water applied, the time watered, and the method of application. If water was not applied because there was a 0.1 inch or greater rainfall within the previous 24 hours, or because of the temperature or other weather conditions that would result in unsafe driving conditions, it must be noted in the record along with the source of measurement (i.e. on-site rain gauge or thermometer). c. Records of watering equipment breakdowns and repairs, and records of contingency efforts undertaken.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-16

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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

What to do	Why to do it
A. 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 B.	40 CFR pt. 75, Appendix B, Section 2.1; Minn. R. 7017.1020
Linearity and Leak Check Test (Acid Rain Program): due before end of each calendar quarter starting 07/21/1998. 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; Minn. R. 7017.1020
Linearity Test Results Summary: due 30 days after end of each calendar quarter following Linearity and Leak Check Test (Acid Rain Program) if performed.	Minn. R. 7007.0800, subp. 2
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar half-year starting 07/21/1998. 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; Minn. R. 7017.1020
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA)	Minn. R. 7007.0800, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA)	Minn. R. 7007.0800, subp. 2
CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedure in 40 CFR pt. 75, Appendix B as amended.	40 CFR Section 75.21; Minn. R. 7017.1020
Emissions Monitoring: The owner or operator shall measure SO ₂ , NO _x , CO ₂ , and Hg emissions, and exhaust gas flow rate, for each affected unit in accordance with 40 CFR Section 75.10.	40 CFR pt. 75; Minn. R. 7017.1020
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 during periods of operation. 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 starting 06/23/2004. 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: Calculate each six-minute average period as follows: total the opacity values of each individual data point collected by the COMS for each one-minute period and divide the total by the number of data points. (The sum of the individual one-minute averages in the applicable averaging period must be determined and divided by the number of one-minute averages taken.) Round the resulting averages to the nearest one percent opacity. This resulting average is the six-minute opacity that shall be recorded by the monitoring system. There are ten individual six-minute consecutive averaging periods in each hour beginning on the clock hour and ending six minutes later.	Minn. R. 7017.1200, subp. 3
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**A-17**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: EU 001 Boiler 1

Associated Items: CE 001 Electrostatic Precipitator - High Efficiency
CE 002 Electrostatic Precipitator - High Efficiency
CE 015 SCR (Selective Catalytic Reduction)
CE 016 Spray Dryer
CE 017 Fabric Filter - High Temperature, i.e., T>250 Degrees F
GP 005 Synthetic Minor Fuel Usage Limits
MR 004 Flow Monitor
MR 006 SO2 Analyzer
MR 007 NOX Analyzer
MR 008 CO2 Analyzer
MR 009 Opacity Monitor
MR 010 Hg CEMS
SV 001 Main Boiler Stack

What to do	Why to do it
A. EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input using 3-hour Average . This limit applies prior to the boiler rehabilitation.	Minn. R. 7011.0510, subp. 1
Total Particulate Matter: less than or equal to 0.015 lbs/million Btu heat input using 3-hour Average at the stack exit using Method 5, excluding condensable particulate matter as allowed under Minn. R. 7017.2060, subp. 3(c). Heat Input is defined as the total input (fuel basis) of EU 001. This limit does not apply when the flue gas temperature is less than 190 degrees F at the inlet of CE017. This limit becomes effective 270 days after the 1st firing of the boiler with fuels other than natural gas following the rehabilitation project.	Title I Condition: To avoid classification as a major mod under 40 CFR Section 52.21; Minn. R. 7007.3000; Meets Minn. R. 7011.0510, subp. 1
Particulate Matter < 10 micron: less than or equal to 0.030 lbs/million Btu heat input using 3-hour Average at the stack exit, as measured using test methods 201A and 202 as amended and using any and all options allowed within the test methods, or other test method approved in advance by the Commissioner as allowed under Minn. R. 7017.2050. Heat Input is defined as the total input (fuel basis) of EU 001. This limit does not apply when the flue gas temperature is less than 190 degrees F at the inlet of CE017. This limit becomes effective 36 months after the 1st firing of the boiler with fuels other than natural gas following the rehabilitation project.	Title I Condition: To avoid classification as a major mod under 40 CFR Section 52.21; Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 0.12 lbs/million Btu heat input using 30-day Rolling Average at the stack exit. Heat Input is defined as the total heat input (CEMS basis) of EU 001. This limit becomes effective 450 days after the 1st firing of the boiler with fuels other than natural gas following the rehabilitation project.	Title I Condition: To avoid classification as a major mod under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633); Minn. R. 7007.3000; Meets 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 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-18**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>Nitrogen Oxides: less than or equal to 0.10 lbs/million Btu heat input using 30-day Rolling Average at the stack exit.</p> <p>Heat Input is defined as the total heat input (CEMS basis) of EU 001.</p> <p>This becomes effective 450 days after the 1st firing of the boiler with fuels other than natural gas following the rehabilitation project.</p>	<p>Title I Condition: To avoid classification as a major mod under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633); Minn. R. 7007.3000;</p>
<p>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.</p>	<p>Minn. R. 7011.0510, subp. 2</p>
<p>B. OPERATIONAL & CONTROL REQUIREMENTS</p>	<p>hdr</p>
<p>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.</p> <p>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.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>Except as provided below, the Permittee shall operate and maintain the control devices listed above under "Associated Items" at all times that any emission unit controlled by the control equipment is in operation. See also Subject Items CE 015, CE 016, and CE 017 for further requirements.</p>	<p>Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14</p>
<p>Operation of CE 015 is not required until 450 days after the first firing of the main boiler with fuels other than natural gas following the rehabilitation project.</p> <p>Operation of CE 016 is not required until 450 days after the first firing of the main boiler with fuels other than natural gas following the rehabilitation project.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>Operation of CE001 and CE002 is not required except during times when the flue gas temperature is less than 190 degrees F at the inlet of the fabric filter (CE017). The permittee shall operate and maintain CE 017 at all times that any source of emissions controlled by the fabric filter is in operation and the flue gas temperature is greater than or equal to 190 degrees F at the inlet of CE017.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>C. BOILER OPERATING RATE REQUIREMENTS AND LIMITS</p>	<p>hdr</p>
<p>Boiler Feed Water flow rate: less than or equal to 3828000 lbs/hour using 8-hour Block Average</p>	<p>Minn. R. 7017.2025, subp. 3 (Notice of Compliance for 10/21/98 performance test) (this requirement expires upon 1st firing of the boiler following rehabilitation)</p>
<p>Each calendar day, calculate the previous day's 8-hour block average boiler feed water flow rates by dividing the total boiler feed water flow during the 8 hours by the total operating time during the 8 hours. Downtime of 15 minutes or more is not to be included in the operating time.</p> <p>The Boiler Feed Water Flow Rate may be exceeded for up to 40 hours per year under the STET limit, below.</p>	<p>Minn. R. 7007.0800, subps. 2 & 5</p>
<p>Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's normal dependable operating load or the short-term 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.</p> <p>In no case will the new operating limit be higher than allowed by an existing permit condition.</p>	<p>Minn. R. 7017.2025, subps. 2(A) & 3(B)</p>
<p>Boiler Operating Conditions Not Meeting the Defined Operating Conditions During Performance Testing:</p> <p>If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following:</p> <ol style="list-style-type: none"> 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. <p>In no case will the new operating limit be higher than allowed by an existing permit condition.</p>	<p>Minn. R. 7017.2025, subp. 3(B)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-19**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
D. MONITORING REQUIREMENTS	hdr
Use the SO2 CEM to measure SO2 emissions.	40 CFR Section 64.3; Minn. R. 7017.1000, subp. 1
Use the NOX CEM to measure NOX emissions.	40 CFR Section 64.3; Minn. R. 7017.1000, subp. 1
Use the COM to measure opacity emissions in 1-minute averages as required in Minn. R. 7017.1200, subp. 3.	Minn. R. 7017.1200, subp. 3
Emissions Monitoring: Measure SO2, NOx, CO2, and Hg emissions, and exhaust gas flow rate, for each affected unit in accordance with 40 CFR Section 75.10.	40 CFR pt. 75; Minn. R. 7017.1020
Emissions Monitoring: The owner or operator shall use a Hg CEMS to measure Hg emissions from EU 001. Additional Hg monitoring requirements are located under subject item SV 001, MR 010, and Total Facility.	Minn. Stat. 216B.681; Minn. R. 7017.1006
E. 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), and a mercury analysis of the fuel must also be done.	Minn. R. 7007.0800, subp. 2
Monitoring and Recordkeeping: 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 load 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
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

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-20

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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																
<p>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:</p> <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																
F. ACID RAIN PROGRAM REQUIREMENTS	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)																
Comply with the applicable Acid Rain emissions limitation for sulfur dioxide. Takes effect January 1, 2000.	40 CFR Section 72.9(c)(1)(ii); 40 CFR Section 72.9(g)(4)																
<p>NOx Averaging Plan (2002-2006)</p> <p>Beginning January 1, 2000 either: 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. OR 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> <th>Plant</th><th>Boiler ID#</th></tr> <tr> <td>Allen S. King</td><td>1</td></tr> <tr> <td>Black Dog</td><td>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	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; Minn. R. 7011.0553		
Plant	Boiler ID#																
Allen S. King	1																
Black Dog	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)																

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-21**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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: <ul style="list-style-type: none"> - 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)(1)
G. MERCURY	hdr
Daily Sampling: Each day starting within 90 days of the first firing of the rehabilitated boiler with solid fuels, the Permittee shall collect a sample of the as-burned solid fuel blend and a sample of flyash, for the purpose of determining the mercury content of each and establishing baseline mercury emission levels. This requirement expires on the earlier of: (1) Five years after initial startup of EU 001 after rehabilitation, or (2) The date a mercury CEMS is state certified. This is a state only requirement and is not enforceable by the EPA administrator and citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633)
Quarterly Composite Samples: Once each calendar quarter, create a composite sample of as-burned fuel blend and of flyash, from the daily samples collected during the previous calendar quarter. The purpose of this is to determine the mercury content of each and establish baseline mercury emission levels. This requirement expires on the earlier of: (1) Five years after initial startup of EU 001 after rehabilitation, or (2) The date a mercury CEMS is state certified. This is a state only requirement and is not enforceable by the EPA administrator and citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633)
Establish Baseline Mercury Emission Rate: Use mercury contents of the as-burned fuel blend and flyash, in conjunction with results of mercury emission testing, to establish the baseline mercury emission rate. This requirement expires on the earlier of: (1) Five years after initial startup of EU 001 after rehabilitation, or (2) The date a mercury CEMS is state certified. This is a state only requirement and is not enforceable by the EPA administrator and citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633)
H. PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 270 days after Initial Startup to measure total particulate matter emissions. Record and submit a summary of data collected simultaneously by the COM for each PM test run. ("Initial Startup" in this case refers to the first firing of the boiler with fuels other than natural gas following rehabilitation.) This requirement has been completed with testing on 1/16/08.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 1,095 days after Initial Startup to measure PM10 emissions. Record and submit a summary of data collected simultaneously by the COM for each PM10 test run. ("Initial Startup" in this case refers to the first firing of the boiler with fuels other than natural gas following rehabilitation.)	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 270 days after Initial Startup to measure mercury emissions. ("Initial Startup" in this case refers to the first firing of the boiler with fuels other than natural gas following rehabilitation.)	Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 4 (PUC order approving MERP, March 8, 2004, Docket No. E-002/M-02-633)
Start-up is defined as all EU operation at less than 250 MW. EU 001 startup ends no later than 15 minutes after EU 001 attains 250 MW. Shutdown is defined as all EU 001 operation at less than 250 MW that is part of the process that terminates EU 001 fuel combustion until the next EU 001 startup. Shutdown does not include temporary operating loads below 250 MW for up to 15 consecutive minutes, due to external factors.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-22**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
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, subp. (G)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
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
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 003) once each calendar week while EU 003 is in operation.	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**A-23**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
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.	40 CFR Section 60.252(c); Minn. R. 7011.1105, subp. (G)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
Operating Hours: less than or equal to 5096 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Do not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 004) once each calendar week, while EU 004 is in operation.	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
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by the 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
C. RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping: Each day, record the hours of operation of the emissions unit.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Monthly Recordkeeping: By the 15th day of each month, calculate and record the 12-month rolling sum of hours operated during the previous 12 months.	Minn. R. 7007.0800, subps. 4 & 5
Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperable.	40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1
D. TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of modified conveyors to measure opacity	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4
Notification of any physical change or operational change which increases emissions rate: due 60 days (or as soon as practicable) before the change is commenced. Within 180 days of completion of any physical or operational change subject to the control measures specified in 40 CFR Section 60.14(a), compliance with all applicable standards must be achieved.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of the Date Construction Began: due 60 days before start of construction (or as soon as practicable) of replacements. Submit the name and number of each unit and the date of construction of the replacement parts of each unit.	40 CFR Section 60.15(d); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 days prior to observation date.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-24**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
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, subp. (G)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
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
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 006) once each calendar week while EU 005 is in operation.	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**A-25**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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<180 Degrees F

CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 006

SV 007

What to do	Why to do it
A. EMISSION & OPERATING LIMITS	hdr
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.	40 CFR Section 60.252(c); Minn. R. 7011.1105, subp. (G)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
Operating Hours: less than or equal to 5096 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Do not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 007, CE 008, and CE 009) once each calendar week, while EU 006 is in operation.	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 007, CE 008, or CE 009.	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
C. RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping: Each day, record the hours of operation of the emissions unit.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Monthly Recordkeeping: By the 15th day of each month, calculate and record the 12-month rolling sum of hours operated during the previous 12 months.	Minn. R. 7007.0800, subps. 4 & 5
Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperable.	40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1
D. TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of modified conveyors to measure opacity	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4
Notification of any physical change or operational change which increases emissions rate: due 60 days (or as soon as practicable) before the change is commenced. Within 180 days of completion of any physical or operational change subject to the control measures specified in 40 CFR Section 60.14(a), compliance with all applicable standards must be achieved.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of the Date Construction Began: due 60 days before start of construction (or as soon as practicable) of replacements. Submit the name and number of each unit and the date of construction of the replacement parts of each unit.	40 CFR Section 60.15(d); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 days prior to observation date.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-26**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
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, subp. (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
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 011) once each calendar week, while EU 010 is in operation.	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

A-27

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

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
A. EMISSION & OPERATING LIMITS	hdr
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.	40 CFR Section 60.252(c); Minn. R. 7011.1105, subp. (G)
Particulate Matter < 10 micron: less than or equal to 0.008 grains/dry standard cubic foot . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7009.0020
Operating Hours: less than or equal to 5096 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Do not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) from the control equipment (CE 012) once each calendar week, while EU 011 is in operation.	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
Solid fuel handling equipment shall not be vented to the atmosphere when emissions are not controlled by the 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
C. RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping: Each day, record the hours of operation of the emissions unit.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Monthly Recordkeeping: By the 15th day of each month, calculate and record the 12-month rolling sum of hours operated during the previous 12 months.	Minn. R. 7007.0800, subps. 4 & 5
Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device is inoperable.	40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1
D. TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of modified conveyors to measure opacity	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4
Notification of any physical change or operational change which increases emissions rate: due 60 days (or as soon as practicable) before the change is commenced. Within 180 days of completion of any physical or operational change subject to the control measures specified in 40 CFR Section 60.14(a), compliance with all applicable standards must be achieved.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of the Date Construction Began: due 60 days before start of construction (or as soon as practicable) of replacements. Submit the name and number of each unit and the date of construction of the replacement parts of each unit.	40 CFR Section 60.15(d); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 days prior to observation date.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-28**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: EU 028 Auxiliary Boiler**Associated Items:** GP 005 Synthetic Minor Fuel Usage Limits

SV 002 Auxiliary Boiler Stack

What to do	Why to do it
A. EMISSION & OPERATING LIMITS (see also GP 005)	hdr
Total Particulate Matter: less than or equal to 0.03 lbs/million Btu heat input . This limit applies at all times except during periods of startup, shutdown, and malfunction. (Potential emissions based on equipment design and allowed fuels are approximately 0.07 lb/million Btu heat input.)	40 CFR Section 63.7500(1); 40 CFR Section 63.7505(a); 40 CFR Section 63.7506(a); 40 CFR Section 63.3(f)(1)
Hydrochloric acid: less than or equal to 0.0005 lbs/million Btu heat input . This limit applies at all times except during periods of startup, shutdown, and malfunction.	40 CFR Section 63.7500(1); 40 CFR Section 63.7505(a); 40 CFR Section 63.7506(a); 40 CFR Section 63.3(f)(1)
Carbon Monoxide: less than or equal to 400 parts per million by volume on a dry basis corrected to 3 percent oxygen (3-run average). This limit applies at all times except during periods of startup, shutdown, and malfunction. (At standard conditions, this is approximately 18 lb/hour; potential emissions under design capacity and fuel limitations are approximately 8.4 lb/hr.)	40 CFR Section 63.7500(1); 40 CFR Section 63.7505(a); 40 CFR Section 63.7506(a); 40 CFR Section 63.3(f)(1)
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input or, as an alternative, sulfur content of fuel shall not exceed 0.5 percent by weight. These limits apply at all times, including periods of startup, shutdown, or malfunction.	40 CFR Section 60.42c(d); 40 CFR Section 60.42c(i); Minn. R. 7011.0570
Opacity: less than or equal to 20 percent opacity using 6-minute Average , except for one 6-minute period per hour of not more than 27 percent opacity. This limit does not apply during periods of startup, shutdown, or malfunction.	40 CFR Section 60.43c(c); Minn. R. 7011.0570
Any Permittee requesting permission to use an alternative non-opacity emission standard to achieve a reduction in HAP emissions shall, unless otherwise specified, submit a proposed test plan or the results of testing and monitoring in accordance with Sections 63.7 and 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in 63.7 and 63.8.	40 CFR Section 63.6(g)(2); Minn. R. 7011.7000
Fuel Usage: limited to natural gas and distillate fuel oil	40 CFR Section 63.7506(a)(2); Minn. R. 7007.0800, subp. 2
At all times the Permittee shall operate and maintain the emission unit subject to the MACT standard and its associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards, as described at 40 CFR Section 63.6(e)(1)(i).	40 CFR Section 63.6(e)(1)(i); 40 CFR Section 63.7505(b); Minn. R. 7011.7000
During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under 40 CFR Section 63.6(e)(3)(i).	40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000
EU 028 must comply with 40 CFR 63 Subpart DDDDD upon startup.	40 CFR Section 63.6(b); Minn. R. 7011.7000
Develop, implement, and maintain a written startup, shutdown, and malfunction plan (SSMP) according to all of the provisions in 40 CFR Section 63.6(e)(3). The plan must be available for inspection and copying by the Administrator upon request.	40 CFR Section 63.7505(d)(e); 40 CFR Sections 63.3(e)(3)(i), (v), (vi), (vii), & (viii)
During periods of startup, shutdown, and malfunction, the permittee must operate in accordance with the SSMP as required in Sec. 63.7505(e) and 63.3(e)(3)(i).	40 CFR Section 63.7540(c); 40 CFR Section 63.3(e)(3)(ii)
When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's SSMP, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the Permittee must keep records of these events as specified in 63.10(b). Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the SSMP in the semiannual startup, shutdown, and malfunction report required in 63.10(d)(5).	40 CFR Section 63.3(e)(3)(iii); Minn. R. 7011.7000

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-29

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>If an action taken by the Permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the SSMP, and the source exceeds any applicable emission limitation in the relevant emission standard, then the Permittee must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).</p>	<p>40 CFR Section 63.3(e)(3)(iv); Minn. R. 7011.7000</p>
<p>B. MONITORING & RECORDKEEPING REQUIREMENTS (see also GP005)</p>	<p>hdr</p>
<p>The Permittee shall obtain a supplier certification for each shipment of fuel oil received, showing the sulfur content of the shipment or showing less than 0.5% sulfur content. The certification shall include the name of the oil supplier and a statement that the oil complies with the definition of distillate oil.</p>	<p>40 CFR Section 60.44c(h); 40 CFR Section 60.48c(f); Minn. R. 7011.0570</p>
<p>Recordkeeping: By the last day of each month, record the amount of each fuel combusted during the previous month in EU 028. Records may be in the form of fuel bills or meter readings.</p>	<p>40 CFR Section 60.13(i) and February 20, 1992, EPA memorandum to meet the requirements of 40 CFR Section 60.48c(g) & (i); Minn. R. 7011.0570</p>
<p>For each 6-month period after actual startup, submit a report to the Administrator including the following information:</p> <ul style="list-style-type: none"> - Calendar dates covered in the reporting period - Records of fuel supplier certification, including a statement signed by the owner or operator that the records of fuel supplier certifications represent all of the fuel oil combusted during the reporting period 	<p>40 CFR Section 60.48c(d); 40 CFR Section 60.48c(e)(11); 40 CFR Section 60.48c(j); Minn. R. 7011.0570</p>
<p>The Permittee shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.</p>	<p>40 CFR Section 63.10(b)(1)</p>
<p>The Permittee shall maintain relevant records of:</p> <ul style="list-style-type: none"> (i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); (ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment; (iii) All required maintenance performed on the air pollution control and monitoring equipment; (iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSMP; 	<p>40 CFR Section 63.10(b)(2)</p>
<ul style="list-style-type: none"> (v) All information necessary to demonstrate conformance with the SSMP when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events); (vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control period); 	<p>40 CFR Section 63.10(b)(2) (continued from above)</p>
<ul style="list-style-type: none"> (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); (viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; (ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations; (x) All CMS calibration checks; (xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section; (xiv) All documentation supporting initial notifications and notifications of compliance status under Section 63.9. 	<p>40 CFR Section 63.10(b)(2) (continued from above)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-30**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

1. Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in Section 63.16, the Permittee shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).	40 CFR Sections 63.10(d)(1) & (2)
2. Reporting results of performance tests. The Permittee shall report the results of a required performance test to the appropriate permitting authority. The Permittee shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under Section 63.9(h).	
Periodic Startup, Shutdown, and Malfunction Reports (SSMP Reports). The Permittee shall submit SSMP Reports only if there is an occurrence of startup, shutdown, or malfunction during the reporting period and shall be delivered or postmarked by the 30th day following the end of each calendar half year. The content of the report shall meet the requirements of 40 CFR 63.10(d)(5)(i).	40 CFR Section 63.10(d)(5)(i)
Immediate Startup, Shutdown, and Malfunction Report. Any time an action taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the SSMP, and the source exceeds any applicable emission limitation in the relevant emission standard, the Permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. Refer to 40 CFR Sections 63.10(d)(5)(ii) for additional information regarding the requirements of this report.	40 CFR Section 63.10(d)(5)(ii); 40 CFR Section 63.7550, Table 9
Keep records according to paragraphs (a)(1) through (3) of this section. (1) A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in Sec. 63.10(b)(2)(xiv). (2) The records in Sec. 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in Sec. 63.10(b)(2)(viii).	40 CFR Section 63.7555(a)
Keep the records required in Table 8 of 40 CFR 63, Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that is applicable.	40 CFR Section 63.7555(c)
Records - Form and how long to keep: (a) The records must be in a form suitable and readily available for expeditious review, according to Sec. 63.10(b)(1). (b) As specified in Sec. 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (c) Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to Sec. 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years.	40 CFR Section 63.7560
Site-Specific Monitoring (SSM) Plan: The Permittee shall develop a SSM plan according to the requirements in section 63.6(e)(3) for CO emissions.	40 CFR Section 63.7505(e)
C.1. NSPS PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup, to measure opacity	40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1
Performance Test Notification (written): submit notification of the performance test to the EPA Administrator.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1
Performance Test Report: Submit performance test data from initial and subsequent tests to the EPA Administrator.	40 CFR Section 60.48c(b); Minn. R. 7011.0570
C.2 NESHAP TESTING & COMPLIANCE DEMONSTRATION	hdr
Demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.	40 CFR Section 63.7510(g)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-31**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>The Permittee is not required to conduct a performance test to demonstrate compliance with the emission limits. The Permittee is not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, the Permittee must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 of 40 CFR 63, Subpart DDDDD.</p> <p>(1) To demonstrate initial compliance, include a signed statement in the Notification of Compliance Status report required in Sec. 63.7545(e) that indicates the boiler burns only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.</p>	<p>40 CFR Section 63.7506(a); 40 CFR Section 63.7520(c); 40 CFR Section 63.7530(b)</p>
<p>(2) To demonstrate continuous compliance with the applicable emission limits, keep records that demonstrate that the boiler burns only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. Also include a signed statement in each semiannual compliance report required in Sec. 63.7550 that indicates the boiler burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.</p>	<p>40 CFR Section 63.7506(a); 40 CFR Section 63.7520(c); 40 CFR Section 63.7530(b) (continued from above)</p>
<p>For affected sources that have an applicable work practice standard, initial compliance requirements depend on the subcategory and rated capacity of the boiler or process heater. If the boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, the initial compliance demonstration is conducting a performance test for carbon monoxide.</p>	<p>40 CFR Section 63.7510(c)</p>
<p>Performance Test: due before end of each year starting 07/31/2006 to measure carbon monoxide emissions.</p> <p>Testing shall measure CO emissions according to Table 5 in Part 63, subpart DDDDD. Conduct annual performance tests for carbon monoxide according to 40 CFR Section 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test, with an extension of 120 days during 2007 only.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request. Application for waiver of performance tests must meet all requirements in Section 63.7(h).</p>	<p>40 CFR Section 63.7(h); Minn. R. 7017.2015</p>
<p>Performance Tests and Procedures:</p> <p>(a) Conduct all performance tests according to Sec. 63.7(c), (d), (f), and (h). Develop a site-specific test plan according to the requirements in Sec. 63.7(c) if the Permittee elects to demonstrate compliance through performance testing.</p> <p>(b) Conduct each performance test according to the requirements in Table 5 of 40 CFR 63, Subpart DDDDD.</p> <p>(e) The Permittee may not conduct performance tests during periods of startup, shutdown, or malfunction.</p> <p>(f) Conduct three separate test runs for each performance test required in this section, as specified in Sec. 63.7(e)(3). Each test run must last at least 1 hour.</p>	<p>40 CFR Section 63.7520; 40 CFR Sections 63.7(c), (d), (e), (f), & (h); Minn. R. 7017.2015</p>
<p>To conduct a performance test for carbon monoxide, the Permittee must:</p> <ol style="list-style-type: none"> 1. Select the sampling ports location and the number of traverse points using Method 1 in appendix A to part 60 of this chapter, 2. Determine oxygen and carbon dioxide concentrations of the stack gas using Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see Sec. 3.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see Sec. 63.14(i)), 3. Measure the moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter, and 4. Measure the carbon monoxide emission concentration using Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522-00 (IBR, see Sec. 63.14(b)) when the fuel is natural gas. 	<p>40 CFR Section 63.7520</p>
<p>In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in Section 63.7545(d) due to unforeseeable circumstances beyond his or her control, the Permittee must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the Permittee of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.</p>	<p>40 CFR Section 63.7(b)(2); Minn. R. 7017.2015</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-32**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2
D. NOTIFICATION & REPORTING REQUIREMENTS	hdr
Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 63.7545(e). Must include all performance test results and fuel analyses and/or other compliance demonstrations. The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable, and meet all applicable requirements of Section 63.9(h).	40 CFR Section 63.7530(e); 40 CFR Section 63.7545(e); 40 CFR Section 63.9(h); Minn. R. 7019.0100
(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test. (2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits. (3) Identification of compliance with the particulate matter emission limit or the alternative total selected metals emission limit. (4) Identification of whether the Permittee plans to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis. (5) Identification of whether the Permittee plans to demonstrate compliance by emissions averaging.	40 CFR Section 63.7530(e); 40 CFR Section 63.7545(e); 40 CFR Section 63.9(h); Minn. R. 7019.0100 (continued from above)
(6) A signed certification that all applicable emission limits and work practice standards have been met. (7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that the Permittee has met any applicable work practice standard in Table 1 of 40 CFR 63, Subpart DDDDD. (8) If the new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, submit a signed statement certifying this in the Notification of Compliance Status report. (9) If the Permittee had a deviation from any emission limit or work practice standard, submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.	40 CFR Section 63.7530(e); 40 CFR Section 63.7545(e); 40 CFR Section 63.9(h); Minn. R. 7019.0100 (continued from above)
Report each deviation from an applicable emission limit, operating limit, and work practice standard in Tables 1 through 4 of 40 CFR 63, Subpart DDDDD that apply. The Permittee must also report each instance during a startup, shutdown, or malfunction when each applicable emission limit, operating limit, and work practice standard was not met. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in Sec. 63.7550.	40 CFR Section 63.7540(b)
Consistent with Sec. 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in Sec. 63.6(e).	40 CFR Section 63.7540(d)
The Permittee must meet the notification requirements in Sec. 63.7545 according to the schedule in Sec. 63.7545 and in subpart A of this part. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in this subpart is required.	40 CFR Section 63.7495(d)
Submit all of the notifications in Sec. 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified.	40 CFR Section 63.7545(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-33**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

<p>Semiannual Compliance Report: Unless the EPA Administrator has approved a different schedule for submission of reports under Sec. 63.10(a), submit a semiannual compliance report according to the dates required in paragraphs (b)(1) through (5) of 40 CFR 63.7550(b).</p> <p>The compliance report must contain the information required in paragraphs (c)(1) through (11) of 40 CFR 63.7550(c).</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.</p> <p>(5) Not Applicable</p>	<p>40 CFR Sections 63.7550(b) & (c); 40 CFR Section 63.7550, Table 9</p>
<p>(6) A signed statement indicating that the boiler burned no new types of fuel.</p> <p>(7) Not Applicable</p> <p>(8) Not Applicable</p> <p>(9) If the boiler had a startup, shutdown, or malfunction during the reporting period and the Permittee took actions consistent with the SSMP, the compliance report must include the information in Sec. 63.10(d)(5)(i).</p> <p>(10) If there are no deviations from any emission limits or operating limits in 40 CFR 63, Subpart DDDDD that apply, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.</p> <p>(11) Not Applicable</p>	<p>40 CFR Sections 63.7550(b) & (c); 40 CFR Section 63.7550, Table 9 (continued from above)</p>
<p>For each deviation from an emission limit or operating limit in 40 CFR 63, Subpart DDDDD and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where the Permittee is not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.</p> <p>(1) The total operating time of each affected source during the reporting period.</p> <p>(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which was deviated.</p> <p>(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.</p> <p>(4) Not Applicable</p>	<p>40 CFR Section 63.7550(d)</p>
<p>Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in 40 CFR 63, Subpart DDDDD in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 of 40 CFR 63, Subpart DDDDD along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.</p>	<p>40 CFR Section 63.7550(f)</p>
<p>Request for extension of compliance. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in 63.6(i)(4) through 63.6(i)(6).</p>	<p>40 CFR Section 63.9(c); Minn. R. 7019.0100, subp. 2</p>
<p>Notification that source is subject to special compliance requirements. An owner or operator of a new source that is subject to special compliance requirements as specified in 63.6(b)(3) and 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in Section 63.9(b).</p>	<p>40 CFR Section 63.9(d); Minn. R. 7019.0100, subp. 2</p>
<p>Any change in the information already provided under Section 63.9 shall be provided to the Administrator in writing within 15 calendar days after the change</p>	<p>40 CFR Section 63.9(j); Minn. R. 7019.0100, subp. 2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: CE 015 SCR (Selective Catalytic Reduction)**Associated Items:** EU 001 Boiler 1

MR 007 NOX Analyzer

What to do	Why to do it
A. OPERATING REQUIREMENTS	hdr
Operate and maintain the SCR at all times that EU 001 is in operation except during times of start-up, shutdown, or malfunction (as defined in EU 001). This requirement is effective 450 days after the first firing of the boiler with fuels other than natural gas following the rehabilitation project.	Minn. R. 7007.0800, subps. 2 & 14
Ammonia Injection Rate: Normal operating range to be determined based on the injection rate observed during the first 180 operating days of required SCR operation. The rate or range may be expressed numerically, mathematically, or graphically, to account of the condition and age of the catalyst. During times that MR 007 is not in operation, the Permittee shall read and record the ammonia injection rate at a minimum of once every 24 hours when the SCR is in operation.	Title I Condition: To avoid classification as a major amendment under 40 CFR Section 52.21; Minn. R. 7007.3000
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording ammonia injection rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the SCR is in operation.	Minn. R. 7007.0800, subp. 4
B. MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
During times when the Permittee is required to manually monitor ammonia injection rate, the Permittee shall record the time and date of each ammonia injection rate reading and whether or not the recorded value was within the Normal Operating Range determined in the above requirement.	Minn. R. 7007.0800, subps. 4 & 5
Periodic Inspections: At least semiannually, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subps. 4, 5 & 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - The recorded ammonia injection rate is outside the required operating range; or - The SCR or any of its components are found during the inspections to need repair. Corrective actions shall return the ammonia injection rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for the SCR.	Minn. R. 7007.0800, subps. 4, 5, & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-35**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: CE 016 Spray Dryer**Associated Items:** EU 001 Boiler 1

MR 006 SO2 Analyzer

What to do	Why to do it
A. OPERATING REQUIREMENTS	hdr
Operate and maintain the spray dryer at all times EU001 is in operation except during times of start-up, shutdown, or malfunction (as defined in EU001). This requirement is effective 450 days after the first firing of the boiler with fuels other than natural gas following the rehabilitation project.	Minn. R. 7007.0800, subps. 2 & 14
Lime Injection Rate: Normal operating range to be determined, based on the injection rate observed during the first 180 operating days of required spray dryer operation. During times that MR 006 is not in operation, the Permittee shall read and record the lime injection rate at a minimum of once every 24 hours when the spray dryer is in operation.	Title I Condition: To avoid classification as a major amendment under 40 CFR Section 52.21; Minn. R. 7007.3000
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording lime injection rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the spray dryer is in operation.	Minn. R. 7007.0800, subp. 4
B. MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
During times when the Permittee is required to manually monitor lime injection rate, the Permittee shall record the time and date of each lime injection rate reading and whether or not the recorded value was within the Normal Operating Range determined in the above requirement.	Minn. R. 7007.0800, subp. 4 & 5
Periodic Inspections: At least semiannually, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - The recorded lime injection rate is outside the required operating range; or - The spray dryer or any of its components are found during the inspections to need repair. Corrective actions shall return the lime injection rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for the spray dryer.	Minn. R. 7007.0800, subp. 4, 5, & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-36**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: CE 017 Fabric Filter - High Temperature, i.e., T>250 Degrees F**Associated Items:** EU 001 Boiler 1

MR 009 Opacity Monitor

What to do	Why to do it
A. OPERATING REQUIREMENTS	hdr
Operate and maintain the fabric filter at all times that EU001 is in operation, except during times that the flue gas temperature at the inlet to CE017 is less than 190 degrees F. This requirement is effective 270 days after the first firing of the boiler with fuels other than natural gas following the rehabilitation project.	Minn. R. 7007.0800, subps. 2 & 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
B. MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column unless a new range is set pursuant to Minn. R. 7017.2025 subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. During times that MR009 is not in operation, the Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 & 14
During times when the Permittee is required to manually monitor the pressure drop, the Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Minn. R. 7007.0800, subps. 4 & 5
Periodic Inspections: At least semiannually, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subps. 4, 5 & 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - Visible emissions are observed; - The recorded pressure drop is outside the required operating range; or - The fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subps. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Xcel Energy - Allen S King Generating
Permit Number: 16300005 - 008

Subject Item: FS 003 North Live Coal Pile

What to do	Why to do it
(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).	Minn. R. 7011.1105, subps. (F)(1) & (2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Xcel Energy - Allen S King Generating
Permit Number: 16300005 - 008

Subject Item: FS 004 South Live Coal Pile

What to do	Why to do it
(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).	Minn. R. 7011.1105, subps. (F)(1) & (2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Xcel Energy - Allen S King Generating
Permit Number: 16300005 - 008

Subject Item: FS 008 Fly Ash Loadout

Associated Items: CE 025 Process Enclosed

What to do	Why to do it
The Permittee shall install and maintain an enclosure to control emissions from the fly ash loadout operation.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: FS 014 Petroleum Coke Unloading Station (Inactive, reactivation will require new modeling demonstration)**Associated Items:** CE 025 Process Enclosed

GP 003 Coal Handling and Coal Yard Traffic - Limited Operation

What to do	Why to do it
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
After first firing of EU 001 following rehabilitation, in order to receive petroleum coke, the Permittee shall install and maintain an enclosure to control emissions from the petroleum coke unloading operation.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-41**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: FS 016 Cooling towers 11-14**Associated Items:** GP 011 22 cooling towers (used for PTE accounting only)

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. (The calculated limit at maximum operation is approximately 0.02 gr/dscf; calculated potential emissions are approximately 0.000044 gr/dscf)	Minn. R. 7011.0715, subp. 1(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-42**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: FS 017 Cooling towers 15-34**Associated Items:** GP 011 22 cooling towers (used for PTE accounting only)

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. (The calculated limit at maximum operation is approximately 0.02 gr/dscf; calculated potential emissions are approximately 0.000044 gr/dscf)	Minn. R. 7011.0715, subp. 1(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-43**

03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

Subject Item: MR 010 Hg CEMS**Associated Items:** EU 001 Boiler 1

What to do	Why to do it
Install: due before 07/01/2007, a mercury CEMS to monitor mercury emissions from EU 001.	Minn. Stat. 216B.681
CEM Certification Test: due 30 days after Excess Emissions/Downtime Reports (EER's) are first required for the CEMS. The first EER is due 30 days after the end of the calendar quarter following 07/01/2007. Follow the Certification Procedures in 40 CFR Section 75.80(d).	Minn. R. 7017.1050, subp. 1; Minn. R. 7017.1110
CEMS QA/QC: The owner or operator shall meet the applicable QA/QC requirements in 40 CFR Section 75.80(e).	Minn. Stat. 216B.681
CEMS Relative Accuracy Test Audit (RATA): due before end of each year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs may be conducted using an alternate test method as approved by the MPCA.	40 CFR Section 75.80(e); Minn. R. 7017.1170, subp. 5
Recordkeeping and Reporting: Follow the provisions listed under 40 CFR Section 75.84. This requirement is effective beginning January 1, 2009.	Minn. Stat. 216B.681

TABLE B: SUBMITTALS

B-1 03/19/08

Facility Name: Xcel Energy - Allen S King Generating
Permit Number: 16300005 - 008

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.

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

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 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

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial 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:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of compliance status	due 60 days after Initial Performance Test	EU028
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU017, EU018
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the unit and the date construction began.	EU018
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the unit and the date construction began.	EU017
Notification of the Date Construction Began	due 60 days before Start Of Construction (or as soon as practicable) of Replacements. Submit the name and number of each unit and the date of construction of the replacement parts of each unit begun. The Permittee submitted notifications for EU 016 and EU 019.	GP004
Notification	due 60 days before 07/01/2007 for the installation of the Hg CEMS. The notification shall include plans and drawings of the proposed system which show the configuration of the monitoring system including any monitor bypass routes.	MR010
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA)	MR010
Submittal	due 200 days after Initial Startup (200 operating days), submit information documenting the normal ammonia injection rate observed during the first 180 operating days of required operation when the NOX monitor showed NOX emissions to be at or below the NOX limit prescribed under Subject Item EU 001. Information may be numerical, mathematical, or graphical, as necessary, to depict the predicted variation of required ammonia injection rate with the age and condition of the catalyst.	CE015
Submittal	due 200 days after Initial Startup (200 operating days), submit information documenting the normal lime injection rate observed during the first 180 operating days of required operation when the SO2 monitor showed SO2 emissions to be at or below the SO2 limit prescribed under Subject Item EU 001.	CE016
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU028
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU004, EU006, EU011
Testing Frequency Plan	due 60 days after Initial Performance Test to measure Opacity.	GP004

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Xcel Energy - Allen S King Generating
Permit Number: 16300005 - 008

Testing Frequency Plan	due 60 days after Performance Test for PM and PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 1-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU001
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TABLE B: RECURRENT SUBMITTALS**B-4** 03/19/08

Facility Name: Xcel Energy - Allen S King Generating

Permit Number: 16300005 - 008

What to send	When to send	Portion of Facility Affected
Compliance Certification	due 30 days after end of each calendar quarter starting 01/01/2009	MR010
Excess Emissions/Downtime Reports (EER's)	<p>due 30 days after end of each calendar quarter starting 07/21/1998. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.</p> <p>The first EER for the Hg monitor is due 10/30/2007.</p>	SV001
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA)	MR010
Submittal	<p>due 30 days after end of each calendar quarter starting 07/01/2007, the Hg reporting data specified in the MPCA approved Hg monitoring plan submitted by the facility.</p> <p>This requirement will expire on 2-22-2010.</p>	SV001
Semiannual Continuous Compliance Report	due 30 days after end of each calendar half-year following Initial Startup	EU028
Semiannual Deviations Report	<p>due 30 days after end of each calendar half-year starting 07/21/1998. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.</p>	Total Facility
Compliance Certification Report (Acid Rain Program)	due 60 days after end of each calendar year starting 01/01/2000 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 starting 07/21/1998. This is the annual compliance certification report, covering all deviations experienced during the calendar year.	Total Facility

APPENDIX B**GP005 Calculations****Facility Name:** Xcel Energy – Allen S. King Generating Plant**Permit Number:** 16300005-008**GP 005 Calculation**

$$\text{Equation B.1} \quad \text{VOC (tpy)} = \sum_{\substack{i=\text{EU 001, EU 028} \\ j=\text{coke, coal, natural gas, fuel oil}}} [\text{EF}_{i,j} \times \text{HI}_{i,j}] \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

Where:

i = emission units (EU 001, EU 028)

j = fuels used in the previous 12-month period, including coal, coke, natural gas, and/or fuel oil

EF = VOC emission factor obtained from the most recent version of AP-42 or the most recent stack test approved by the MPCA, if any, for each emission unit and each fuel (lb VOC/mmBtu heat input)

HI = 12-month rolling sum heat input for each fuel (mmBtu)

APPENDIX C PM₁₀ Modeling Parameters**Facility Name:** Xcel Energy - Allen S. King Generating Plant**Permit Number:** 16300005-008**PM₁₀ Modeling Parameters**

The following stack and emission parameters were used in the modeling analysis submitted August 16, 2004. Revision of any of these parameters must result in plume dispersion characteristics equivalent to or better than the plume dispersion characteristics modeled and summarized in the model submitted August 16, 2004. Revision of any of these parameters may require a major amendment.

SV ID No.	Source Description	Modeled Height (feet)	Modeled Diameter ¹ (feet)	Stack Exit Velocity (feet/sec)	Direction of Flow	Modeled Temperature (°F)	24-Hour Modeled PM₁₀ (lb/hr)	Annual Modeled PM₁₀ (lb/hr)
001	Main Boiler	785.1	18.5	95.5	Vertical	169	300	300
003	Coal Gallery	145	3.4	51.5	Vertical	70	1.92	1.92
004	Transfer House 1	21.3	2.5	78.1	Vertical	70	1.58	1.58
005	Coal Crusher House	76.4	3.28	45.3	Vertical	70	1.58	1.58
006	Railcar Unloading	32.8	3	163.4	Vertical	70	4.66	4.66
007	Railcar Unloading	32.8	3	163.4	Vertical	70	4.66	4.66
008	Boiler 11	40.0	4	91.5	Vertical	525	5.33	1.63
009	Boiler 12	27.9	3	41.0	Vertical	550	5.33	1.63
011	Transfer House 2	26.6	2.7	47.9	Vertical	70	1.13	1.13
012	Transfer House 5	15.7	2.7	54.5	Vertical	70	1.28	1.28
013	Emergency Generator	40.0	1.3	169.3	Vertical	891	0.80	0.071
014	Emergency Generator	40.0	1.3	169.3	Vertical	891	0.80	0.071
017	Boiler 13	27.9	3	41.0	Vertical	550	0.46	0.46
018	Flite Conveyors	104.0	3.3	31.5	Vertical	70	1.1	1.1
020	Emergency Generator	14.1	0.3	0.003	Horizontal	1150	0.03	0.03
023	Emergency Generator	11.1	0.3	377	Vertical	936	0.27	0.27
024	Propane Vaporizer 1	6.9	1	11.5	Vertical	550	0.014	0.014
025	Propane Vaporizer 2	6.9	1	11.5	Vertical	550	0.014	0.014
026	Radio System Emergency Generator	14.1	0.3	0	Horizontal	1150	0.029	0.029
028	Fire Pump Engine	16.1	0.3	293.3	Vertical	855	0.044	0.044
029	Lime Day Bin	68	3.3	0.003	Horizontal	70	0.21	0.21

SV ID No.	Source Description	Modeled Height (feet)	Modeled Diameter ¹ (feet)	Stack Exit Velocity (feet/sec)	Direction of Flow	Modeled Temperature (°F)	24-Hour Modeled PM₁₀ (lb/hr)	Annual Modeled PM₁₀ (lb/hr)
030	Lime Storage Silo	118	3.3	0.003	Horizontal	70	0.15	0.15
031	Byproduct/Fly Ash Storage	123.0	3	0.003	Horizontal	70	0.56	0.56
032	Byproduct/Fly Ash Storage	115	3	0.003	Horizontal	70	0.42	0.42
033	Byproduct/Fly Ash Transfer	50	1.6	0.003	Horizontal	70	0.33	0.33
034	Byproduct/Fly Ash Transfer	50	1.6	0.003	Horizontal	70	0.33	0.33
035	Byproduct/Fly Ash Transfer	50	1.6	53.8	Vertical	70	0.33	0.33
036	Fly Ash Silo	105.8	1.46	0.003	Horizontal	283	0.27	
FS016	Cooling Tower 11	60.3	35.8	20.3	Vertical	70	0.021	0.010
FS016	Cooling Tower 12	60.3	35.8	20.3	Vertical	70	0.021	0.010
FS016	Cooling Tower 13	60.3	35.8	20.3	Vertical	70	0.021	0.010
FS016	Cooling Tower 14	60.3	35.8	20.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 15	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 16	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 17	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 18	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 19	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 20	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 21	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 22	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 23	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 24	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 25	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 26	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 27	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 28	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 29	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 30	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 31	67.3	32.2	25.3	Vertical	70	0.021	0.010
FS017	Cooling Tower 32	67.3	32.2	25.3	Vertical	70	0.021	0.010

¹ If the stack is not round (i.e., it is rectangular), this is the equivalent diameter used in the modeling analysis

APPENDIX D**Insignificant Activities****Facility Name:** Xcel Energy - Allen S. King Generating Plant**Permit Number:** 16300005-008

The tables below lists the insignificant activities that are currently at the facility and their associated general applicable requirements.

Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(B)	Furnaces, boilers, and incinerators: 2. fuel burning equipment with a capacity less than 500,000 Btu/hour but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 500,000 Btu per hour is less than or equal to 2,000,000 Btu/hour. <ul style="list-style-type: none">• Locomotive storage building<ul style="list-style-type: none">⇒ 3 heaters @ 75,000 Btu/hr each⇒ 1 heater @ 130,000 Btu/hr	Minn. R. 7011.0610
3(G)	Emissions from a laboratory, as defined in the subpart <ul style="list-style-type: none">• Water lab activities	Minn. R. 7011.0710/0715
3(H)	Miscellaneous: 3. brazing, soldering or welding equipment <ul style="list-style-type: none">• Welding equipment	Minn. R. 7011.0710/0715
3(I)	Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than: 1. 4,000 lbs/year of carbon monoxide; and 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone. <ul style="list-style-type: none">• Loadout of dewatered slag• Magnetic separator chute• Solvent use (> 200 gallons, < 1 tpy)	Minn. R. 7011.0710/0715

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment. <ul style="list-style-type: none"> Spray paint system (>200 gal/yr) for facility upkeep 	Minn. R. 7011.0710/0715
4	Individual emissions units at a stationary source, each of which has: <p>A. Potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of carbon monoxide;</p> <p>B. Potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for particulate matter, particulate matter less than ten microns, nitrogen oxide, sulfur dioxide, and VOCs; and</p> <p>C. For hazardous air pollutants, emissions units with:</p> <p>(1) potential emissions of 25 percent or less of the hazardous air pollutant thresholds listed in subp. 5; or</p> <p>(2) combined HAP actual emissions of one ton per year unless the emissions unit emits one or more of the HAPs listed in this subpart.</p> <p>Temporary emergency heating equipment Internal combustion engines VOC fugitives from pumps, valves, flanges on distillate forwarding system Distillate oil storage tanks Propane vaporizers 1 & 2 Plant propane emergency generator Plant diesel fire pump engine Substation diesel emergency generator Plant propane radio system generator Plant vacuum system Slag house vacuum system</p>	Minn. R. 7011.0710/0715 or Minn. R. 7011.2300

Conditionally Insignificant Activities & Applicable Requirements

	Rule Description of the Activity	Applicable Requirement
Minn. R. 7008.4110	Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM ₁₀) inside a building, provided that emissions from the equipment are: <p>a). filtered through an air cleaning system; and</p> <p>b). vented inside of the building 100% of the time.</p> <ul style="list-style-type: none"> Sandblasting Room Metal machining equipment 	Minn. R. 7011.0710/0715

APPENDIX E – Acid Rain Forms

Facility Name: Xcel Energy - Allen S. King Generating Plant

Permit Number: 16300005-008

Allen S. King
Plant Name (from Step 1)

STEP 2, cont'd.

	D#	D#	D#	D#	D#	D#
	Type	Type	Type	Type	Type	Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(p) Repowering extension plan approved or under review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign & date.

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_x 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_x 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_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Gary D. Hudson	
Signature		Date 6/21/02



Phase II NO_x Averaging Plan

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

This submission is: ☐ New ☐ Revised

Page 1

Page 1 of 3

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 (ACEL) 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) ACEL	(c) Annual Heat Input Limit
Allen S. King	MN	1	0.86	1.05	34000000
Black Dog	MN	3	0.46	0.81	5685000
Black Dog	MN	4	0.46	0.81	11036000
High Bridge	MN	3	0.50	0.60	1771500
High Bridge	MN	4	0.50	0.60	1771500
High Bridge	MN	5	0.50	0.60	5037000
High Bridge	MN	6	0.50	0.60	10313000
Minnesota Valley	MN	4	0.46	0.47	1189000
Riverside	MN	6	0.46	0.85	4324500

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

0.54

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

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

0.54

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

≤

≤

Where,

- R_{Li} = Alternative contemporaneous annual emission limitation for 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

STEP 3

Mark one of the two options and enter dates.

☒ This plan is effective for calendar year 2002 through calendar year 2006 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.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special ProvisionsEmission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x 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.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Gary D. Hudson	
Signature	Date 6/21/02

Plant Name (from Step 1) Allen S. King
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NO_x Averaging - Page 3**STEP 1**

Plant Name	State	ID#	Emission Limitation	(a)	(b)	(c)
				Alt. Contemp. Emission Limitation	Alt. Contemp. Emission Limitation	Annual Heat Input Limit
Riverside	MN	7	0.46	0.85		4324500

Continue the identification of units from Step 1, page 1, here.

[illegible]

Acid Rain Permit Application

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

This submission is: ☐ New ☒ Revised RENEWAL APPLICATION

STEP 1

Identify the source by plant name, State, and ORIS code.

Allen S. King	MN	1915
Plant Name	State	ORIS Code

STEP 2

**Enter the unit ID#
for every affected
unit at the affected
source in column "a."
For new units, enter the
requested information in
columns "c" and "d."**

[illegible]

Permit Requirements**STEP 3****Read the
standard
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 part 75.
- (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 part 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)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), 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) 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 an exemption under 40 CFR 72.7 or 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.

**STEP 3,
Cont'd.**

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, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (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 an 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.

**Step 3,
Cont'd.****Liability, Cont'd.**

(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_x 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 an 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.

Certification**STEP 4****Read the
certification
statement,
sign, and
date**

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Mark Fritsch	
Signature	Date 1-10-03

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 16300005-008

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 4911)
Northern States Power Company 414 Nicollet Mall Minneapolis, MN 55401	Xcel Energy – Allen S. King Generating Plant Highway 95 & Point Road Oak Park Heights, Washington County
Contact: Rick Rosvold Phone: 612-330-7879	

1.2. Description of the Facility and Permit Action

The Allen S. King Generating Plant (King Plant) is a coal-fired electric utility located on Highway 95 in Oak Park Heights, Minnesota. The facility's emission sources 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.

The Rehabilitation Project authorized through permit action 005 included the installation of new pollution control equipment, modification of the plant heat rejection system, and rehabilitation and life extension of the main (EU001, coal-fired) boiler. The rehabilitation will allow the plant to operate at a capacity approaching its original design rating.

The boiler rehabilitation consisted of:

- Replacement of the furnace floor and support system.
- Installation of new cyclone burners and re-entrant throats.
- Replace furnace sidewalls and furnace floor tubes.
- Installation of induced draft fans to accommodate additional draft requirements of new control equipment.

The new (additional) control equipment consists of:

- Selective Catalytic Reduction (SCR) reactor for control of nitrogen oxides (NO_x) emissions.
- Spray dryer absorber lime-based semi-dry Flue Gas Desulfurization (FGD) system for control of sulfur dioxide (SO₂) emissions
- Pulse-Jet cleaned Fabric Filter (PJFF) for additional control of particulate matter (PM).

The rehabilitation project authorized by permit action 005 also involved decommissioning and removal of one existing auxiliary boiler, replacing it with a new auxiliary boiler.

The existing permit is a Part 70 operating permit. The currently proposed permit amendment is a major amendment.

1.3 Description of the Activities Allowed by this Permit Action

This permit action does not authorize any additional physical modifications beyond what has been previously permitted. The changes made at this time are a major amendment to the permit language and structure, also incorporating an administrative amendment for unrelated changes. The changes are as follows:

Changes requested in Major Amendment Application (December 7, 2007)

EU001 – Extended the deadline for applicability of the Title I SO₂ and NO_x limits by 180 days, from 270 days to 450 days after initial startup; clarified that the PM and particulate matter less than 10 um in size (PM₁₀) limits of 0.015 lb/MMBtu heat input and 0.031 lb/MMBtu heat input, respectively, only apply when the fabric filter is in use, which can only be when the flue gas temperature at the inlet to the filter is 190 degrees Fahrenheit or greater; extended the deadline for continuous use of CE015 and CE016 (selective SCR system and spray dryer, respectively) by 180 days, from 270 days to 450 days after initial startup; clarified that fabric filter must only be operated when the flue gas temperature is at least 190 degrees F; removed the requirement for testing ammonia slip because it has been completed; also deleted language explaining what is meant by “Initial startup” since the actual date of initial startup has already been reported and inserted into the permit as a trigger date.

CE015 – extended the deadline by which the SCR must be in continuous use by 180 days, from 270 to 450 days after first firing; revised language for determining normal operating range of ammonia injection from “during the first 180 days of operation” to “during the first 180 operating days of required operation,” since operating problems have prohibited getting this information during the 180 consecutive days immediately following startup.

CE016 – extended the deadline by which the spray dryer must be in continuous use by 180 days, from 270 to 450 days after first firing; revised language for determining normal operating range from “during the first 180 days of operation” to “during the first 180 operating days of required operation,” since operating problems have prohibited getting this information during the 180 consecutive days immediately following startup.

CE017 -- clarified that the fabric filter need only be operated when the flue gas temperature is at least 190 degrees Fahrenheit.

Changes requested in Administrative Amendment Application (October 1, 2007)

EU028 – Removed requirements associated with notification of start of construction, start of operation, and notification of intent to construct; changed “initial performance test” for carbon monoxide (CO) to a requirement for “performance test” annually, with a 2007-only 120 day extension; changed citations associated with CO compliance test from the 40 CFR pt. 60 Subpart DDDDD (Industrial Boiler NESHAP) citation to Minnesota Rules citations, since we are not allowed to amend NESHAP requirements and also because the NESHAP has been vacated; did not remove remaining industrial boiler NESHAP requirements, because air quality program policy is to not do that at this time – Permittee has submitted a case-by-case MACT analysis as required for this boiler.

EU007, EU008, EU015, GP001 – Removed all requirements from the permit, since these boilers have been decommissioned effective August 31, 2007.

Additional Changes Made

FS017 – Removed requirement for notification of date of startup, since this has been completed; added Industrial Process Equipment Rule limit to FS017, because somehow this disappeared between permit actions -006 and -007.

EU001 – Removed requirement for notification of actual date of initial startup, because that has already been submitted.

EU004, EU006, EU011 – Removed requirements for notifications of date of construction and date of startup, because these have already been submitted.

1.4. Facility Emissions:

The changes to permit language described above do not affect the annual facility emissions. The only emissions changes are the elimination of potential emissions associated with the three boilers that were removed in August 2007 (EU007, EU008, and EU015). The decrease in permitted emissions in tons per year (tpy) associated with the removal of these boilers is as follows.

Table 1. Total Facility Potential to Emit Decrease

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	All HAPs tpy
Decrease in Total Facility Permitted Emissions	5.15	5.15	0.40	93.8	56.8	3.73	1.3
Total Potential Emissions after Decrease	518	809*	3027	2592	320	159	178

* PM₁₀ includes condensable particulate matter emissions, which are not included in what is defined as Total Particulate Matter (PM); that is why PM₁₀ is higher than PM

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	X		
Part 70 Permit Program	X		
Part 63 NESHAP	X		

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review (NSR) regulations. No changes subject to NSR are authorized by this permit.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

There are no changes to existing New Source Performance Standards requirements resulting from the changes authorized by this permit action.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major hazardous air pollutant (HAP) source. The auxiliary boiler (EU028) was subject to the now-vacated NESHAP for industrial boilers (Subpart DDDDD), and those requirements are currently included in the permit. The MPCA considers EU028 to be an existing source (see <http://www.pca.state.mn.us/air/permits/boilerneshap.html>).

Compliance Assurance Monitoring (CAM)

The requirement to include CAM requirements in the permit at this time would be triggered by a “significant permit modification” affecting a Large Pollutant Specific Emission Unit (PSEU); this would require CAM for only the affected PSEU to be included in the permit. In this case, the proposed change involves (1) extending applicability and testing deadlines because of unforeseen problems, and (2) clarifying that the high-temperature baghouse is not to be used at temperatures lower than 190 degrees Fahrenheit. Both changes pertain to control equipment (CE015 and CE017) controlling emissions from a large PSEU (EU001). However, the proposed changes to the permit conditions do not constitute a “significant permit modification” as this term is described in 40 CFR § 70.7(e)(4) – anything that is not covered under “minor permit modification” under 40 CFR § 70.7(e)(2) or “administrative permit amendment” under 40 CFR § 70.7(d).

The proposed changes qualify as a minor permit modification because they (1) do not violate any applicable requirement; (2) do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit; (3) do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; (4) do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject; (5) are not modifications under any provision of title I of the Act; and (6) are not required by the State program to be processed as a significant modification. Therefore, it is not necessary to include CAM for CE015 and CE017 in the permit at this time.

Minnesota State Rules

No changes to the applicability of Minnesota Standards of Performance result from the changes authorized by this permit action.

3. Technical Information

3.1 Calculations of Emissions Decrease

Attachment 1 to this TSD includes a spreadsheet calculating potential HAP emissions from the three removed boilers, considering the permit conditions that applied to them. Emission factors used are from AP-42, Tables 1.4-3 and 1.4-4, for natural gas combustion. The HAP calculations from these boilers were not included in the potential emissions summary for previous permit actions. The permitted criteria pollutant emissions from the three boilers were taken from the PTE summary in Delta.

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

This permit action is concerned with extending the timelines for compliance with permit conditions, and no changes to periodic monitoring methods are proposed. See previous permit actions for documentation of periodic monitoring decisions made.

3.3 Insignificant Activities

Insignificant activities are not affected by this permit action. See technical support documents for previous permit actions for more information on insignificant activities.

3.4 Permit Organization

The organization of the permit is not affected by this permit action.

3.5 Comments Received

Public Notice Period: January 31, 2008 – February 29, 2008

U.S. Environmental Protection Agency's (EPA) 45-day Review Period: January 31, 2008 – March 17, 2008

Comments were not received from the public during the public notice period. Comments were not received from EPA during their review period. No changes to the permit were made since beginning the public and EPA comment periods and before permit issuance.

4. Conclusion

Based on the information provided by Xcel Energy, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 16300005-008, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Toni Volkmeier (permit writer/engineer)
 Christian Norman (enforcement)
 Kelsey Suddard (peer reviewer)

File No. 202G; DQ Nos. 1700, 1791

Attachments: 1. Emissions Decrease Calculation Spreadsheets
 2. Facility Description and CD-01 Forms