

AIR EMISSION PERMIT NO. 13100003-003

IS ISSUED TO

Northern States Power Company d/b/a Xcel Energy

Xcel Energy West Faribault Generating Plant
17th Street Southwest
Faribault, Rice County, MN 55021

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

Permit Type	Application Date	Issue Date	Action Number
Total Facility Operating Permit	08/1995	08/16/2000	001
Major Amendment	10/25/2002	03/19/2003	002
Total Facility Operating Permit - Reissuance	09/30/2004	See below	003

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

Permit Type: Federal; Part 70/Existing Major for New Source Review

Issue Date: April 7, 2005

Expiration: April 7, 2010

Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. 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:

This facility generates electricity mainly during periods of peak electrical demand. It is composed of two identical combustion turbine generators restricted to firing only pipeline natural gas. This permit action is a re-issuance of the title V operating permit.

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant

Permit Number: 13100003 - 003

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
Performance Testing: 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 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, Minn. R. 7017.2035, subp. 1 and 2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
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 the written notification: 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
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant

Permit Number: 13100003 - 003

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
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
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)
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)
Recordkeeping: Retain all records at the stationary source or other central location responsible for operation of the facility, 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 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)
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
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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). Submit the report on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant

Permit Number: 13100003 - 003

Subject Item: GP 001 Gas Turbines**Associated Items:** EU 001 Gas Turbine No. 1

EU 002 Gas Turbine No. 2

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperature has been attained, for each emission unit in GP 001.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input for each emission unit in GP 001. Potential emission rate of SO ₂ is 0.0034 lb/mmBtu from combustion of natural gas, based on AP-42 chapter 3.1, table 3.1-2a.	Minn. R. 7011.2300, subp. 2
Permitted Fuels: Pipeline natural gas only.	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant
Permit Number: 13100003 - 003

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant
Permit Number: 13100003 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

TABLE B: RECURRENT SUBMITTALS

04/07/05

Facility Name: Xcel Energy W Faribault Generating Plant

Permit Number: 13100003 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). Submit the certification on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This certification covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: Xcel Energy West Faribault Generating Plant

Permit Number: 13100003-003

Insignificant Activities Required to Be Listed

Minn. R. 7007.1300, subp. 3(H)(3) Brazing, soldering, and welding equipment

Minn. R. 7007.1300, subp. 4 Temporary portable internal combustion engines fueled by
distillate oil, gasoline, or natural gas

TECHNICAL SUPPORT DOCUMENT
For
DRAFT/PROPOSED AIR EMISSION PERMIT NO. 13100003-003

This technical support document is for parties interested in the draft/proposed permit and meets the requirements by 40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1. This provides legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the draft/proposed permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 4911)
Northern States Power Company d/b/a Xcel Energy 414 Nicollet Mall Minneapolis, Minnesota 55401 Sarah Butrymowicz (612)330-7630	17 th Street SW Faribault Rice County

1.2. Description of the Source and Permit Action

This facility generates electricity mainly during periods of peak electrical demand. It is composed of two identical combustion turbine generators restricted to firing only pipeline natural gas. This permit action is a re-issuance of the title V operating permit.

1.3 Description of any Changes Allowed with this Permit Issuance

No changes are allowed by this permit action. The allowance for distillate fuel oil combustion in the turbines has been removed at the request of the Permittee.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

Permit Number and Issuance Date	Action Authorized
13100003-002 March 19, 2003	Revision of title V modeling requirements based on August 2001 revised title V modeling policy.

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	17.4	17.4	8.95	842	216	5.53	1.87	2.70
Total Facility Actual Emissions (2002)	0.03	0.03	0.01	1.42	0.37	0.01	HAPs not reported in emission inventory	

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	NO _x		PM, PM ₁₀ , SO ₂ , CO, VOC
Part 70 Permit Program	NO _x , CO		PM ₁₀ , SO ₂ , VOC
Part 63 NESHAP			single and total HAP

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review regulations. No changes 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)

The gas turbines at this facility pre-date the effective date of part 60 subpart GG, and therefore, the NSPS does not apply.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is not a major source of HAPs and therefore, is not subject to any NESHAP.

Minnesota State Rules

The gas turbines are subject to Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines.

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
EU 001 & EU 002 (in GP 001)	Minn. R. 7011.2300	Opacity and SO ₂ limits for internal combustion engines

Community Involvement

This is an existing facility. No complaints have been received by the MPCA. Operations are very limited. It is the permit writer's opinion that no additional community involvement is warranted.

Acid Rain Program

This facility is composed of two identical simple cycle turbines that commenced operation before November 15, 1990, and therefore are not subject to the acid rain program as indicated by 40 CFR §72.6(b)(1).

Title V Modeling

The Permittee submitted the modeling information required by the previous title V operating permit, and therefore this requirement has been removed.

3. Technical Information

3.1 Emission Calculations

Calculations were made using AP-42 emission factors from chapter 3.1 for stationary gas turbines. These turbines are older (1960's) Pratt & Whitney simple cycle gas turbines.

Gas turbines are known to have elevated CO, VOC, and sometimes NO_x emissions during startup and shutdown. However, no emissions data for startup and shutdown are available for these older turbines, and therefore emissions during startup and shutdown were not separately quantified. However, this is not a concern because this source is not subject to limits to avoid major source permitting thresholds of NSR or part 70, or to avoid part 63 NESHAP requirements.

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.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Gas Turbines GP 001	Minn. R. 7011.2300	none	fuel limited to natural gas which ensures compliance with visible emissions and SO ₂ limits

3.3 Insignificant Activities

The facility conducts brazing, welding, and soldering. Also, temporary small internal combustion engines fueled by fuel oil, gasoline, or natural gas may be used occasionally for providing compressed air or power.

3.4 Comments Received

Public Notice Period: February 10, 2005, to March 11, 2005
EPA 45-day Review Period: February 10, 2005, to March 28, 2005

No comments were received from the public during the public notice period or from EPA during their review period.

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. 13100003-003 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Marshall Cole (permit writer/engineer)
Bob Berg (enforcement)

Peggy Bartz (peer reviewer)

Attachment: Emissions Calculations