

**AIR EMISSION PERMIT NO. 17100019- 001  
IS ISSUED TO**

Northern States Power Company

NSP - Monticello Nuclear Plant  
2807 West Highway 75  
Monticello, Wright County, Minnesota 55362

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):

<b>Permit Type</b>	<b>Application Date</b>
Total Facility Operating Permit	September 15, 1995

This permit authorizes the permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

**Permit Type:** Part 70

**Issue Date:** August 16, 2000

**Expiration:** August 16, 2005

All Title I Conditions do not expire.

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Rodney E. Massey, P.E.  
Director  
South District

For Karen A. Studders  
Commissioner  
Minnesota Pollution Control Agency

## **TABLE OF CONTENTS**

**Notice to the Permittee**

**Permit Shield**

**Table A: Limits and Other Requirements**

**Table B: Submittals**

**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. Certain requirements which have been determined not to apply are listed in Table A of this permit.

**FACILITY DESCRIPTION**

This air emission facility is part of the Northern States Power Monticello Nuclear Generating Plant. The air emission facility is composed of an oil and gas-fired heating boiler, four emergency diesel generators, and one emergency fire pump diesel engine.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

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

**Subject Item:****Total Facility**

<b>What to do</b>	<b>Why to do it</b>
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
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
General Performance Test (PT) Requirements:  Performance Tests are due as outlined in Tables A and B of the Permit. See Table B for additional testing requirements.  PT Notifications (written): due 30 days before each Performance Test PT Plan: due 30 days before each Performance Test PT Pre-test Meeting: due 7 days before each Performance Test PT Report: due 45 days after each Performance Test PT Report-Microfiche: due 105 days after each Performance Test	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1 and 2
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
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
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**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

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)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original 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 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**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

**Subject Item: GP 001 Diesel Engines**

**Associated Items:** EU 002 Diesel Generator 11  
 EU 003 Diesel Generator 12  
 EU 004 Security Diesel Generator  
 EU 005 Fire Pump Diesel Engine  
 EU 006 Diesel Generator 13  
 EU 007 Temporary Engine > 600 Hp  
 EU 008 Temporary Engine < 600 Hp

What to do	Why to do it
LIMITS AND OPERATING REQUIREMENTS - ALL GP 001 EMISSION UNITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (equivalent to a distillate fuel oil sulfur content of 0.49% by weight) for each emission unit in GP 001.	Minn. R. 7011.2300, subp. 2
Sulfur Content of Fuel: less than or equal to 0.49 percent by weight for distillate fuel oil for each emission unit in GP 001.	Minn. R. 7007.0800, subp. 2
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
Permitted Fuels: Distillate fuel oil only for each emission unit in GP 001.	Minn. R. 7007.0800, subp. 2
EU 007 and EU 008 Temporary Diesel Engines: The Permittee may operate temporary diesel fuel-fired engines at the facility providing the engines meet all applicable emission limits and fuel requirements in this subject item. A temporary engine is any engine that is not located and/or operated at the facility for more than twelve consecutive months, and does not include emission units 002, 003, 004, 005, or 006. Any temporary engine that is operating in place of EU 006 is subject to the operating hours recordkeeping requirements of EU 006.	Minn. R. 7007.0800, subp. 2
Fuel Supplier Certification: The Permittee shall obtain a single certification from the fuel supplier that guarantees a maximum sulfur content in all fuel oil deliveries thereafter. The single certification shall also state that the supplier will notify the Permittee in writing on the date of delivery of fuel oil with a sulfur content exceeding the guaranteed maximum, that the fuel oil sulfur content exceeds the guaranteed maximum value.	Minn. R. 7007.0800, subp. 4 and 5
PERFORMANCE TESTING REQUIREMENTS - EU 002, EU 003, and EU 006.	hdr
Initial Performance Test: due 180 days after Permit Issuance to measure opacity of EU 002, 003, and 006.  For additional applicable performance test requirements, see "General Performance Test Requirements" in Table A, Subject Item "Total Facility".	Minn. R. 7017.2020, subp. 1
REQUIREMENTS APPLICABLE ONLY TO EU 006 (Diesel Generator 13)	hdr
Operating Hours: less than or equal to 1250 hours/year using 12-month Rolling Sum	Title I Condition: To avoid major modification status for NOx according to 40 CFR Section 52.21
Nitrogen Oxides: less than or equal to 4.0 lbs/million Btu heat input	Title I Condition: To avoid major modification status for NOx according to 40 CFR Section 52.21
Recordkeeping - EU 006 Operating Hours: By the last day of each month, the Permittee shall record the number of hours that EU 006 was operated during the previous month and during the previous 12-month period.	Title I Condition: Recordkeeping to avoid major modification status for NOx according to 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 5
Performance Test: due before end of each 60 months starting 12/31/2000 to measure EU 006 NOx emissions. The first test is due by December 31, 2000.  For additional applicable performance test requirements, see "General Performance Test Requirements" in Table A, Subject Item "Total Facility".	Title I Condition: Performance testing to avoid major modification status for NOx according to 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

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

What to do	Why to do it
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight for distillate fuel oil.	40 CFR Section 60.42c(d)
Operating Hours: less than or equal to 5113 hours/year using 12-month Rolling Sum when combusting distillate fuel oil.	Title I Condition: To avoid major modification status for SO <sub>2</sub> according to 40 CFR Section 52.21
Recordkeeping - Distillate Fuel Oil Operating Hours: By the last day of each month, the Permittee shall record the number of hours that distillate fuel oil was combusted in EU 001 during the previous month and during the previous 12-month period.	Title I Condition: Recordkeeping to avoid major modification status for SO <sub>2</sub> according to 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 5
Recordkeeping - Quantity of Fuel Combusted in EU 001: Once each month the Permittee shall record the quantity of each fuel combusted in EU 001 during the previous calendar month. Records may be in the form of meter readings or fuel bills.	40 CFR Section 60.48c(g) and February 20, 1992, EPA memorandum
<p>Fuel Supplier Certification: Obtain a certification from the fuel oil supplier for each fuel oil delivery, stating the following information:</p> <p>1) The name of the oil supplier;  2) A statement from the supplier that the oil meets the definition of distillate oil in 40 CFR Section 60.41c.</p> <p>In lieu of a certification for each delivery, the Permittee may elect to obtain a single certification from the fuel supplier guaranteeing a maximum sulfur content in all fuel oil deliveries thereafter, and containing the information required in items 1 and 2 above. The single certification shall also state that the supplier will notify the Permittee in writing on the date of delivery of fuel oil with a sulfur content exceeding the guaranteed maximum, that the fuel oil sulfur content exceeds the guaranteed maximum value.</p>	Minn. R. 7007.0800, subp. 2; meets requirements of 40 CFR Section 60.48c(f)
Permitted Fuels: Distillate fuel oil and natural gas only.	Minn. R. 7007.0800, subp. 2
A temporary boiler may be brought onsite for a period of up to one year, for the purpose of providing steam, heat, or electric power in place of EU 001, when EU 001 is out of operation. The temporary boiler may not be operated at the same time as EU 001 except for up to eight hours during start-up and shutdown transition periods. The temporary boiler must have potential emission rates in lbs/hour for all criteria pollutants that are less than the permit emission limits and potential emission rates of EU 001. All fuel usage by any temporary boiler shall be included in the fuel usage recordkeeping required under this subject item.	Minn. R. 7007.0800, subp. 2

## TABLE B: SUBMITTALS

08/16/00

Facility Name: NSP - Monticello Nucle  
Permit Number: 17100019 - 001

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance for SO <sub>2</sub> and NO <sub>x</sub> emissions. This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, App. W. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance for SO <sub>2</sub> and NO <sub>x</sub> emissions. The results shall be submitted after the MPCA has reviewed and approved the modeling protocol. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure opacity of EU 002, 003, and 006.	GP001
Performance Test Report	due 45 days after Initial Performance Test to measure opacity of EU 002, 003, and 006.	GP001

**TABLE B: RECURRENT SUBMITTALS**

08/16/00

Facility Name: NSP - Monticello Nucle

Permit Number: 17100019 - 001

What to send	When to send	Portion of Facility Affected
Quarterly Report	due 30 days after end of each calendar quarter following Permit Issuance. The report shall indicate the calendar dates covered in the report, and contain a copy of the fuel supplier certification for each fuel delivery received during the quarter and a statement signed by the Permittee that the certifications submitted represent all of the fuel combusted during the calendar quarter.	EU001
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Certification shall be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility
Performance Test Report - Microfiche Copy	due 105 days after end of each calendar year following Initial Performance Test to measure EU 006 NOx emissions (105 days after each Performance test).	GP001
Performance Test Report	due 45 days after end of each calendar year following Initial Performance Test to measure EU 006 NOx emissions (45 days after each Performance Test).	GP001

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 17100019-001**

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

**1. General Information**

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 4911)
Northern States Power 414 Nicollet Mall Minneapolis, Minnesota 55401-1993 (612) 337-2287	2807 West Highway 75 Monticello Wright County, Minnesota 55362 (612) 295-1006

1.2. Description of the facility

This air emission facility is part of the Northern States Power Monticello Nuclear Generating Plant. The air emission facility is composed of an oil and gas-fired heating boiler, four emergency diesel generators, and one emergency fire pump diesel engine.

1.3 Description of any changes allowed with this permit issuance

No changes are authorized by this permit.

1.4 Description of all amendments issued since the issuance of the last total facility permit (permit No. 202W-92-OT-2) and included in the Part 70 Permit.

Permit Number and Issuance Date	Action Authorized
Amendment No. 1 March 20, 1996	Authorized gas combustion in EU 001 (heating boiler). The boiler has always been capable of burning natural gas, but the last total facility permit (202W-92-OT-2) did not list natural gas as a permitted fuel.
Amendment No. 2 June 16, 1997	Increased the NOx emission limit and reduced the permitted annual operating hours for EU 006 (diesel generator No. 13).

### 1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Pb tpy	All HAPs tpy
Total Facility Limited Potential Emissions	57.15	54.68	153.98	801.76	173.13	53.36	0.00	<1
Total Facility Actual Emissions*	0.43	0.30	0.55	5.79	1.15	0.19	NR	NR

\* 1997 Emission Inventory

Table 2. Facility and Permit Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	NO <sub>x</sub>		CO, PM, PM <sub>10</sub> , SO <sub>2</sub> , VOC
NAAR (list pollutant)	NA	NA	NA
Part 70 Permit Program (list pollutant)	NO <sub>x</sub> , SO <sub>2</sub> , CO		VOC, PM <sub>10</sub> , Total HAPs

\* Refers to potential emissions that are less than those specified as major by 40 CFR 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

## 2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

### Regulatory Overview of Facility

EU, GP, or SV #	Applicable Regulations	Comments:
EU 001	Title I Condition/40 CFR § 52.21	Operating hours limited to 5113 hrs/year (12-month rolling sum) to restrict EU 001 SO <sub>2</sub> emissions to less than the significant level defined in 40 CFR § 52.21
	40 CFR § 60.48c	Fuel usage recordkeeping and fuel supplier certification
GP 001	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines – opacity and SO <sub>2</sub> emission limits (these standards apply individually to each emission unit in GP 001)
	Minn. R. 7007.0800	Fuel supplier certification
	Minn. R. 7017.2020, subp. 1	Opacity performance testing for EU 002, 003, and 006
	<i>These requirements apply only to EU 006 (a member of GP 001)</i>	Operating hours limited to 1250 hrs/year (12-month rolling sum) to restrict EU 006 NO <sub>x</sub> emissions to less than the significant level defined in 40 CFR § 52.21.
	Title I Condition/40 CFR § 52.21	NO <sub>x</sub> emissions limited to 4.0 lb/mmBtu  Monthly recordkeeping of operating hours; NO <sub>x</sub> performance testing

## 3. Technical Information

1989 Installation of EU 006 and EU 001: the installation of these two emission units during the same year was not a single project. This is because the EU 001 heating boiler was an emergency installation that was necessary to take the place of the previous heating boiler that blew up. Only the installation of EU 006 (diesel emergency electric generator) was a planned project.

EU 001 Operating Hours and Fuel Oil Sulfur Content Limits: these limits are necessary to restrict EU 001 SO<sub>2</sub> emissions to less than the significant level under 40 CFR § 52.21 in order to keep this installation a nonmajor modification.

EU 001 NO<sub>x</sub> Limit Removal: the NO<sub>x</sub> limit has not been incorporated into this permit from the previous permit. No limit is needed due to the limiting effect of the EU 001 operating hours limit. Using the published AP-42 NO<sub>x</sub> emission factor, potential NO<sub>x</sub> emissions are well under 40 tons per year. Worst case annual NO<sub>x</sub> emissions are 21.25 tpy. This occurs when oil is combusted for 5113 hours (producing 13.33 tons of NO<sub>x</sub>) and natural gas is combusted for 3647 hours (producing 7.92 tons of NO<sub>x</sub>).

Permit Action Number: 17100019-001

Date: 2/10/2004

EU 006 (part of GP 001) NO<sub>x</sub> Emission and Operating Hours Limits: these limits are necessary to restrict EU 006 NO<sub>x</sub> emissions to less than the significant level under 40 CFR § 52.21 in order to keep this installation a nonmajor modification.

GP 001 Performance Testing:

NO<sub>x</sub> and opacity testing is required for EU 006. Opacity testing is required for EU 002 and 003.

GP 001 test deadlines and frequencies were determined in consideration of the following:

- all GP 001 emission units are operated infrequently
- opacity testing is not warranted for EU 004 and 005 because they are very small (139 hp and 320 hp, respectively) and operated very infrequently (average 12 hr/yr and 41 hr/yr, respectively)
- for EU 006 test frequency, results of past 1996 EU 006 NO<sub>x</sub> test were considered
- total operating hours for EU 006 (since 1989 installation) are 269 hours (1999 and 1998 hours were 18 hours each and 1997 hours were 19 hours).

The 1996 EU 006 NO<sub>x</sub> test measured 3.6 lb NO<sub>x</sub>/mmBtu. This is 90 percent of the 4.0 lb/mmBtu limit. Normally, an annual NO<sub>x</sub> test would be required with this margin of compliance, according to the MPCA AQ stack test policy guidance document. However, because EU 006 is infrequently operated, testing frequency is reduced to once every 60 months.

#### **4. Conclusion**

Based on the information provided by the Northern States Power Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 17100019-001 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 M. Cole, Yolanda Hernandez

Attachment: Emission Calculations