

AIR EMISSION PERMIT NO. 10300036-002

IS ISSUED TO

City of St. Peter

BROADWAY GENERATION PLANT

1308 West Broadway
St. Peter, Nicollet County, MN 56082

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
Total Facility Oper. Permit - Reissuance	03/16/2007	see below	002

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; Part 70/Limits to Avoid New Source Review

Issue Date: March 4, 2008

Expiration: March 4, 2013
Title I Conditions do not expire.

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

for Brad Moore
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:

The facility is composed of six identical model 3516B 2000 kW Caterpillar diesel engine generators sets. The generators are used for standby and peaking service. The generators are new utility units that qualify for the exemption to the acid rain program provided under 40 CFR § 72.7.

The facility is a non-major source under New Source Review due to a 12-month rolling sum diesel fuel usage limit. An indoor 12,000 gallon fixed roof tank stores diesel fuel. Each engine has a 300 gallon day tank.

PER 002

This is a reissuance of the title V operating permit. No changes are authorized by this permit action. No amendments have been issued to the original title V/construction permit issued in 2002.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant
 Permit Number: 10300036 - 002

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

Subject Item: Total Facility

What to do	Why to do it
OPERATIONAL REQUIREMENTS	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
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
Operation Changes: In any shutdown, breakdown, or deviation that would cause an increase in the emission of any regulated air pollutant, 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
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
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
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)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, fuel usage records, 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)
When the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	hdr
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant
 Permit Number: 10300036 - 002

<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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:</p> <ol style="list-style-type: none"> 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. 	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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.</p>	<p>Minn. R. 7007.1150 through Minn. R. 7007.1500</p>
<p>Application for Major Amendment Required: If any GP 001 NOx emission factor evaluation test measures NOx emissions greater than 9.60 g/bhp-hr, the Permittee shall submit a complete application for a major permit amendment to adjust the GP 001 fuel usage limit. The application shall be submitted within 30 days after the Permittee's receipt of the test report (from the testing company), indicating emissions greater than 9.60 g/bhp-hr. The application shall include a proposed revised fuel usage limit to restrict GP 001 NOx emissions to a maximum of 235 tons per year (12-month rolling sum basis) based on the actual value of the emission factor that was measured greater than 9.60 g/bhp-hr.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>Application for Permit Reissuance: due 180 days before expiration of existing permit.</p>	<p>Minn. R. 7007.0400, subp. 2</p>
<p>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).</p>	<p>Minn. R. 7007.1400, subp. 1(H)</p>
<p>Emission Inventory Report: due April 1 days of each calendar year following permit issuance. The report shall be submitted on a form approved by the Commissioner.</p>	<p>Minn. R. 7019.3000 through Minn. R. 7019.3010</p>
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	<p>Minn. R. 7002.0005 through Minn. R. 7002.0095</p>
<p>Performance Test Notifications and Submittals</p> <p>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.</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p> <p>The NOx performance test reports shall include NOx emissions data converted to g/bhp-hr.</p>	<p>Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 002

Subject Item: GP 001 6 Identical 2000 kW Diesel Generators

Associated Items: EU 001 Engine 1/SV 001

EU 002 Engine 2/SV 002

EU 003 Engine 3/SV 003

EU 004 Engine 4/SV 004

EU 005 Engine 5/SV 005

EU 006 Engine 6/SV 006

What to do	Why to do it
LIMITS AND OPERATIONAL REQUIREMENTS	hdr
Fuel Usage: less than or equal to 1099823 gallons/year using 12-month Rolling Sum	Title I Condition: To restrict NOx emissions to less than major source status under 40 CFR Section 52.21 & Minn. R. 7007.3000
Each emission unit in GP 001 is a "new utility unit" as defined in 40 CFR Section 72.2, and is exempt from the Acid Rain Program requirements as provided by 40 CFR Section 72.7(a). Although each unit is not an affected unit (as defined in Section 72.2), each unit is subject to the requirements of Section 72.7, Section 72.8, or Section 72.14, as applicable to the exemption.	40 CFR Section 72.6(b)(9)
Generating Capacity: Each emission unit in GP 001 shall serve one or more generators with a total nameplate capacity not exceeding 25 megawatts.	40 CFR Section 72.7(a)(1)
Permitted Fuel Type: Diesel Fuel only with a maximum annual average sulfur content of 0.05 percent by weight.	40 CFR Section 72.7(a)(2) and (3)
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input for each GP 001 emission unit.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This applies individually to each GP 001 emission unit.	Minn. R. 7011.2300, subp. 1
Minimum Stack Height: The Permittee shall not install and vent emissions through a stack on any GP 001 emission unit that is less than 60 feet above grade.	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
MONITORING AND RECORDKEEPING	hdr
Diesel Fuel Sulfur Content Certification: The Permittee shall obtain a certification for each diesel fuel delivery from the fuel supplier specifying the actual sulfur content in percent by weight, or guaranteeing that the sulfur content does not exceed 0.05 percent by weight. The average annual sulfur content may not exceed 0.05% by weight to maintain Acid Rain New Unit Exemption status.	Minn. R. 7007.0800, subps. 4 & 5
Average Annual Sulfur Content Determination: The annual average sulfur content, as a percentage by weight, shall be calculated using the equation at 40 CFR Section 72.7(d)(2) as modified by Section 72.7(d)(3). This equation is in Appendix B of this permit.	40 CFR Section 72.7(d)(3)
Diesel Fuel Usage Recordkeeping: by the 30th day of each month, the Permittee shall calculate and record the fuel usage for the previous month, and the diesel fuel usage for the previous 12-month period. All records shall be in the form of gallons of diesel fuel used for the time period.	Title I Condition: To restrict NOx emissions to less than major source status under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due before 05/05/2009 to evaluate NOx emission factor of 9.21 g/bhp-hr. Testing shall be conducted on one engine, and all future tests shall be conducted on an emission unit that has not been tested. After all units have been tested, testing shall be conducted on the unit for which testing is least current. Previous testing was conducted on EU 001 on May 5, 2004. No other GP 001 emission units have been tested as of the issuance date of this permit. Refer to Total Facility Performance Test Notifications and Submittals for additional performance testing requirements.	Title I Condition: To restrict NOx emissions to less than major source status under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before 05/05/2009 to measure opacity. Testing shall be conducted on one engine, and all future tests shall be conducted on an emission unit that has not been tested. After all units have been tested, testing shall be conducted on the unit for which testing is least current.	Minn. R. 7017.2020, subp. 1

TABLE B: SUBMITTALS

B-1 03/04/08

Facility Name: Broadway Generation Plant
Permit Number: 10300036 - 002

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.

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 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 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

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

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 03/04/08

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 002

What to send	When to send	Portion of Facility Affected
Testing Frequency Plan	due 60 days after Performance Test for evaluating NOx emission factor, and measuring opacity. The plan shall specify a testing frequency for the NOx emission factor, and for opacity, based on the test data and MPCA guidance. Future NOx emission factor evaluation and opacity tests at one-year (12-month), 36-month, or 60-month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP001

TABLE B: RECURRENT SUBMITTALS

B-3 03/04/08

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 002

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 10/03/2002. 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.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 10/03/2002 (for the previous calendar year). The Certification shall be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

Facility Name: Broadway Generation Plant
Permit Number: 10300036-002

APPENDIX B: 40 CFR §72.7(d)(2) Equation For Determination Of Average Annual Sulfur Content

$$\%S_{annual} = \frac{\sum_{n=1}^{last} \%S_n V_n d_n}{\sum_{n=1}^{last} V_n d_n}$$

where:

$\%S_{annual}$ = annual average sulfur content of the fuel burned during the year by the unit, as a percentage by weight;

$\%S_n$ = sulfur content of the n^{th} sample of the fuel delivered during the year to the unit, as a percentage by weight;

V_n = volume of the fuel in a delivery during the year to the unit of which the n^{th} sample is taken, in standard cubic feet; or, for fuel delivered during the year to the unit continuously by pipeline, volume of the fuel delivered starting from when the n^{th} sample of such fuel is taken until the next sample of such fuel is taken, in standard cubic feet;

d_n = density of the n^{th} sample of the fuel delivered during the year to the unit, in pounds per standard cubic foot; and

n = each sample taken of the fuel delivered during the year to the unit, taken at least once for each delivery; or, for fuel that is delivered during the year to the unit continuously by pipeline, at least once each quarter during which the fuel is delivered.

Note: as specified by §72.7(d)(3), in lieu of the factor, volume times density ($V_n d_n$), in the equation, the factor, mass (M_n), may be used, where M_n is mass of the nongaseous fuel in a delivery during the year to the unit of which the n^{th} sample is taken, in pounds; or, for fuel delivered during the year to the unit continuously by pipeline, mass of the nongaseous fuel delivered starting from when the n^{th} sample of such fuel is taken until the next sample of such fuel is taken, in pounds.

TECHNICAL SUPPORT DOCUMENT
For
DRAFT/PROPOSED AIR EMISSION PERMIT NO. 10300036-002

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

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number	Facility Address (SIC Code: 4911)
City of St. Peter 405 West St. Julien Street St. Peter, Minnesota 56082 Lewis Giesking (507) 934-0670	1308 West Broadway St. Peter Nicollet County

1.2. Facility Description

The facility is composed of six identical model 3516B 2000 kW Caterpillar diesel engine generators sets. The generators are used for standby and peaking service. The generators are new utility units that qualify for the exemption to the acid rain program provided for under 40 CFR §72.7.

The facility is a non-major source under New Source Review due to a 12-month rolling sum diesel fuel usage limit. An indoor 12,000 gallon fixed roof tank stores diesel fuel. Each engine has a 300 gallon day tank.

This is a reissuance of the title V operating permit. No changes are authorized by this permit action. No amendments have been issued to the original title V/construction permit issued in 2002.

1.3. 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	2.08	2.08	4.68	235	5.98	4.15	0.02	0.10
Total Facility Actual Emissions (2005)	0.41	0.33	0.29	16.42	4.93	0.48	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, Pb
Part 70 Permit Program	NO _x		PM ₁₀ , SO ₂ , CO, VOC, Pb
Part 63 NESHAP			HAPs

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing non-major source under New Source Review regulations due to a fuel usage limit. 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)

40 CFR Part 60 Subpart IIII does not apply to the stationary compression ignition internal combustion engines at this source because the Permittee did not commence construction, reconstruction, or modification of the engines after July 11, 2005 (see §60.4200(a)(2) and (3)).

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a natural minor source of HAPs. Therefore, no NESHAPs apply.

Acid Rain Program

All six engines qualify for the new unit exemption in 40 CFR §72.7 because the nameplate generation capacity for each unit is less than 25 MW (2000 KW for each engine), the engines do not burn any coal or coal-derived gaseous fuel, and the engines burn fuel with an average annual sulfur content of 0.05% by weight or less. The application for exemption was submitted with the original title V permit application submitted in 2002.

Minnesota State Rules

All six engines are subject to Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

Subject Item	Applicable Regulations	Comments:
Total Facility	Minn. R. 7007.0800, subp. 2	Requirement to submit major amendment application to adjust GP 001 fuel use limit if any GP 001 NO _x test shows emission rate above 9.60 g/bhp-hr
GP 001	Title I Condition: 40 CFR §52.21 40 CFR §72.7 Minn. R. 7011.2300 Minn. R. 7017.2020	Fuel usage limit, recordkeeping, and emission factor testing to avoid major source status for NO _x Acid Rain new unit exemption requirements Minnesota Standards of Performance for Stationary Internal Combustion Engines Opacity testing

3. Technical Information

NO_x performance testing was conducted on May 5, 2004. EU 001 NO_x was measured at 54.27 lb/hr which converts to 2.894 lb/mmBtu and 9.21 g/bhp-hr (assuming a 96.2% engine efficiency). Opacity averaged 5%.

The 9.60 g/bhp-hr NO_x trigger value is used in the total facility permit requirement for submittal of a major amendment application to adjust the fuel usage limit. At this emission rate, GP 001 NO_x emissions would be 245 tons per year. This trigger is not equal to the manufacturer's factor to avoid unnecessary permitting activity, but is appropriate to restrict NO_x to less than the 250 tpy PSD major source threshold.

The 60 foot minimum stack height requirement is based on NO_x SCREEN3 modeling conducted for the original title V operating permit in 2002.

3.1 Emission Calculations

Emissions data from the manufacturer is on a 'not to exceed' lb/hr basis for PM/PM₁₀, NO_x, CO, and VOC. The worst case lb/hr emissions for NO_x and VOC are at 100% load whereas the worst case lb/hr value for CO is at 25% load and for PM/PM₁₀ is at 75% load. As a result, potential and limited potential emissions are calculated for PM/PM₁₀ and CO at the 'not to exceed' manufacturer's emissions value and not at the emission rate at 100% load.

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
GP 001	12-month rolling sum fuel usage limit (Title I Condition: to avoid major source status for NO _x under §52.21(b))	Fuel usage (purchases)	
	NO _x Performance Testing (Title I Condition: to avoid major source status for NO _x under §52.21(b); Minn. R. 7017.2020, subp. 1)	None	
	Opacity ≤ 20% (Minn. R. 7011.2300, subp. 1)	Periodic opacity testing	
	Sulfur content of fuel ≤0.05% by weight (40 CFR §72.7(a)(2) and (3)); SO ₂ ≤0.5 lb/mmBtu (Minn. R. 7011.2300, subp. 2)	Fuel supplier certification of diesel fuel sulfur content	Monitoring required at 40 CFR §72.7(f) ensures compliance with this requirement

3.3 Insignificant Activities

Permittee indicates that none of the insignificant activities listed under Minn. R. 7007.1300, subparts 3 and 4 are present at the facility.

3.4 Comments Received

Public Notice Period: January 11, 2008 – February 11, 2008
 EPA 45-day Review Period: January 11, 2008 – February 26, 2008

No comments were received during the public comment period or the EPA review period.

During the public comment period, several minor revisions were made to the permit. These changes are allowed under the administrative amendment provisions of Minn. R. 7007.1400, and therefore these changes do not require re-noticing of the draft permit. These changes are as follows:

- 1) the revision of the citation for the GP 001 60 foot stack height requirement from *Minn. R. 7007.0800, subp. 2* to *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* to reflect the fact that the requirement is a state-only requirement based on modeling to protect the NO_x MAAQS (Minn. R. 7007.1400, subp. 1(J));
- 2) inclusion of ‘*This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.*’ in the 60 foot stack height requirement (Minn. R. 7007.1400, subp. 1(G) to clarify that this is a state-only requirement not enforceable by EPA or citizens);

3) removal of the requirement for maximum sulfur content in diesel fuel of 0.5% by weight (Minn. R. 7007.1400, subp. 1(G) to clarify that the 40 CFR Section 72.7 0.05% by weight sulfur limit is the actual diesel fuel percent by weight sulfur content limit); and

4) addition of the recordkeeping required by Minn. R. 7007.1200, subp. 4 (Minn. R. 7007.1400, subp. 1(C)).

4. Conclusion

Based on the information provided by the City of St. Peter, the MPCA has reasonable assurance that the proposed operation of the Broadway Generation Plant, as described in the Air Emission Permit No. 10300036-002, and this TSD, 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)
 Bret Rohne (enforcement)
 Sean O'Connor (stack testing)
 Bonnie Nelson (peer reviewer)

AQ File No. 2519F; DQ 1430

Attachments: CD-01 forms
 Emission Calculations