

AIR EMISSION PERMIT NO. 10300036-003
Moderate Amendment

IS ISSUED TO

City of Saint Peter

Broadway Generation Plant
1308 West Broadway Avenue
St. Peter, Nicollet County, MN 56082

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 10300036-002, and authorizes the Permittee to operate and modify 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.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the State Implementation Plan under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency Administrator or citizens under the Clean Air Act.

Permit Type: Federal; Pt 70/Limits to Avoid NSR

Operating Permit Issue Date: March 4, 2008

Authorization to Construct Date: December 30, 2009

Moderate Amendment Issue Date: March 2, 2010

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

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for Paul Eger
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit - Reissuance	March 16, 2007	002
Moderate Amendment	October 23, 2009	003

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Facility Description

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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.

Amendment Description**Permit Action 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.

Permit Action 003:

This permit is a moderate amendment to construct a new model C32 DITA 1000 kW Caterpillar diesel emergency generator. This generator will supply emergency power to the water treatment facility and will not be hooked up to the power grid.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant
 Permit Number: 10300036 - 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
SOURCE SPECIFIC REQUIREMENTS	hdr
Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
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.	Minn. R. 7007.0800, subp. 2
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, subp. 7(A), 7(L), & 7(M); 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
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
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.	Minn. R. 7007.0800, subps. 14 and 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
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
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, and/or B.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</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 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days 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>Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2</p>
<p>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.</p>	<p>Minn. R. 7017.2025, subp. 3</p>
<p>MONITORING REQUIREMENTS</p>	<p>hdr</p>
<p>Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (any requirements applying to continuous emission monitors are listed separately in this permit).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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 necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>RECORDKEEPING</p>	<p>hdr</p>
<p>Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, 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).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 5(B)</p>
<p>If 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.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
<p>REPORTING/SUBMITTALS</p>	<p>hdr</p>
<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 3</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

<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>	Minn. R. 7019.1000, subp. 2
<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>	Minn. R. 7019.1000, subp. 1
<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. 	Minn. R. 7019.1000, subp. 1
<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>	Minn. R. 7007.1150 - 7007.1500
<p>Application for Permit Reissuance: due 180 days before expiration of existing permit.</p>	Minn. R. 7007.0400, subp. 2
<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>	Minn. R. 7007.1400, subp. 1(H)
<p>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.</p>	Minn. R. 7019.3000 - 7019.3100
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	Minn. R. 7002.0005 - 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

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 A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

Subject Item: EU 007 Engine 7/SV 007

Associated Items: SV 007 Engine 7

What to do	Why to do it
STATE REQUIREMENTS	hdr
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.50 lbs/million Btu heat input . The potential to emit from this unit is 0.051 lbs/MMBtu due to equipment design and allowable fuels.	Minn. R. 7011.2300, subp. 2
OPERATING CONDITIONS	hdr
Fuel type: No. 2 fuel oil only	Minn. R. 7005.0100, subp. 35a
The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subps. 4 & 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of distillate fuel oil, certifying that the sulfur content does not exceed 0.05% by weight.	Minn. R. 7007.0800, subps. 4 & 5
NESHAP ZZZZ REQUIREMENTS	hdr
The Permittee shall meet the requirements of 40 CFR Section 63 subpart ZZZZ by meeting the requirements of 40 CFR Section 60 subpart IIII, as a new emergency reciprocating internal combustion engine at an area source of HAPs.	40 CFR 63.6590(c)
NSPS IIII REQUIREMENTS	hdr
EMISSION LIMITS	hdr
Exhaust Opacity: Less than or equal to: 1. 20 percent during the acceleration mode 2. 15 percent during the lugging mode; and 3. 50 percent during the peaks in either the acceleration or lugging modes.	40 CFR Section 60.4202(a)(2); 40 CFR Section 89.113(a)
Carbon Monoxide: less than or equal to 2.6 grams/horsepower-hour (This limit is equivalent to 3.5 g/kw-hr).	40 CFR Section 60.4205(b); 40 CFR Section 89.112(a)
NMHC+NOx: less than or equal to 4.8 grams/horsepower-hour (This limit is equivalent to 6.4 g/kw-hr).	40 CFR Section 60.4205(b); 40 CFR Section 89.112(a)
Total Particulate Matter: less than or equal to 0.15 grams/horsepower-hour (This limit is equivalent to 0.20 g/kw-hr).	40 CFR Section 60.4205(b); 40 CFR Section 89.112(a)
OPERATING CONDITIONS	hdr
Fuel Type: Diesel fuel must have a maximum sulfur content of 500 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.	40 CFR Section 60.4207(a); 40 CFR Section 60.4207(c); 40 CFR Section 80.510(a)
Fuel Type: Beginning October 1, 2010, diesel fuel must have a maximum sulfur content of 15 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.	40 CFR Section 60.4207(b); 40 CFR Section 60.4207(c); 40 CFR Section 80.510(b)
The Permittee may petition the Administrator for approval to use existing non-compliant diesel fuel inventories for up to six months or until exhausted, whichever comes first. If additional time is needed, the Permittee must submit a new application to the Administrator.	
Emission Standards: The Permittee shall operate and maintain the unit in accordance with the standards as required by the emission limits above, according to the manufacturer's written instructions, or according to procedures developed by the owner or operator that are approved by the engine manufacturer, for the entire life of the engine. Settings for the unit may not be changed unless permitted by the manufacturer.	40 CFR Section 60.4206; 40 CFR Section 60.4211(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

<p>Operating Limitations: The Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing provided that the tests are recommended by Federal, State, or local government; the manufacturer; the vendor; or the insurance company associated with the engine. Maintenance checks and readiness testing for the emergency engines is limited to 100 hours per year. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that the Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.</p> <p>There is no time limit on the use of emergency stationary ICE in emergency situations. Any operation other than emergency operation, maintenance, and testing, as permitted, is prohibited.</p>	<p>40 CFR Section 60.4211(e)</p>
<p>MONITORING AND RECORDKEEPING</p>	<p>hdr</p>
<p>Monitoring - Hours of Operation: The engine shall contain a non-resettable hour meter prior to startup of the engine.</p>	<p>40 CFR Section 60.4209(a)</p>
<p>Compliance Demonstration: The Permittee must demonstrate compliance by purchasing an engine certified to conform with the emission standards listed in the emission limits above for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's specifications.</p>	<p>40 CFR Section 60.4211(c)</p>
<p>Recordkeeping: The Permittee shall maintain records of the operation of the engine in emergency service that are recorded through the non-resettable hour meter. The record must include the time of operation and the reason the generator was in operation during that time.</p> <p>If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the permittee is not required to submit an initial notification.</p>	<p>40 CFR Section 60.4214(b)</p>

TABLE B: SUBMITTALS

B-1 03/02/10

Facility Name: Broadway Generation Plant
Permit Number: 10300036 - 003

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 03/02/10

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 003

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 03/02/10

Facility Name: Broadway Generation Plant

Permit Number: 10300036 - 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. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this 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

APPENDIX MATERIAL

Facility Name:Broadway Generation Plant

Permit Number: 10300036-003

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
AIR EMISSION PERMIT NO. 10300036-003

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:

Table 1. Applicant and Source Address

Applicant/Address	Stationary Source/Address (SIC Code: 4911)
City of St. Peter 405 West St. Julien Street St. Peter, Minnesota 56082	1308 W Broadway St. Peter Nicollet County
Contact: Lewis Giesking Phone: 507-934-0670	

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.

1.3 Description of the Activities Allowed by this Permit Action

This permit is a moderate amendment to construct a new model C32 DITA 1000 kW Caterpillar diesel emergency generator. This generator will supply emergency power to the water treatment facility and will not be hooked up to the power grid. The PTE of the facility was recalculated and several citations were updated according to current MPCA policy.

1.4. Facility Emissions:

Table 2. Non-Title I Emissions Increase Summary

Pollutant	After Change (lb/hr)	Before Change (lb/hr)	Net Change (lb/hr)	Insignificant Modification Thresholds (lb/hr <)	Minor and Moderate Amendment Thresholds (lb/hr < or ≥)	Type of Amendment (Minor or Moderate)
PM ₁₀	0.73	0.50	0.23	0.855	3.42	Insignificant
NO _x	75.97	56.58	19.39	2.28	9.13	Moderate
SO ₂	1.65	1.13	0.52	2.28	9.13	Insignificant
CO	4.23	1.44	2.79	5.70	22.80	Insignificant
VOC	1.34	1.00	0.34	2.28	9.13	Insignificant
Lead				0.025	0.11	

Table 3. Total Facility Potential to Emit Summary (tpy)

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC	Single HAP	All HAPs
Total Facility Limited Potential Emissions	2.13	2.13	2.13	4.81	239.85	6.68	4.24	0.06	0.11
Total Facility Actual 2007 Emissions	0.38	0.31	0.31	0.27	16.99	4.56	0.44	HAPs not reported in emission inventory	

Table 4. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		NO _x	PM, PM ₁₀ , PM _{2.5} , 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

This 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 in GP 001 because the Permittee did not commence construction, reconstruction, or modification of the engines after July 11, 2005 (see §60.4200(a)(2) and (3)); however, it does apply to the emergency generator (EU 007).

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a natural minor source of HAPs, but is subject to the NESHAP 40 CFR pt. 63 subp. ZZZZ, Stationary Reciprocating Internal Combustion Engines. However, EU 007 is a new engine at an area source of HAPs and complies with ZZZZ by complying with NSPS IIII.

Compliance Assurance Monitoring (CAM)

CAM does not apply to this facility because it has no control equipment.

Environmental Review & AERA

This permit action does not include any changes that are subject to environmental review, i.e. an Environmental Assessment Worksheet (EAW) and is not required to perform an Air Emissions Risk Analysis (AERA).

Minnesota State Rules

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

Table 5. Regulatory Overview of Units Affected by the Modification/Permit Amendment

Level*	Applicable Regulations	Comments:
EU 007	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines.
	40 CFR pt. 63, subp. ZZZZ	NESHAP for Stationary Reciprocating Internal Combustion Engines
	40 CFR pt. 60, subp. IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment 1 to this TSD contains detailed spreadsheets and supporting information prepared by the MPCA and the Permittee.

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.

The table below summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 6. Periodic Monitoring

Level*	Requirement (rule basis)	Additional Monitoring	Discussion
EU 007	Opacity Limit: $\leq 20\%$ SO ₂ Limit: ≤ 0.50 lbs/MMBtu (Minn. R. 7007.2300) Opacity Limit: $\leq 15/20/50\%$ CO Limit: ≤ 2.6 g/hp-hr NMHC + NO _x Limit: ≤ 4.8 g/hp-hr PM Limit: ≤ 0.15 g/hp-hr (40 CFR § 60.4204(b))	Fuel certification, fuel type, hours of operation.	The SO ₂ potential for these units is 0.051 lbs/MMBtu. This engine is a new source at an area source of HAPs and complies with NESHAP ZZZZ by complying with NSPS III.

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3.3 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

3.4 Comments Received

EPA 45-day Review Period: 1/15/2010 – 3/1/2010

Comments were not received from EPA during their review period.

4. Conclusion

Based on the information provided by Broadway Generation Plant, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 10300036-003, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Chris Buntjer (permit writer/engineer)
Jennifer Lovett (enforcement)
Marc Severin (stack testing)
Marshall Cole (peer reviewer)

AQ File No. 2519F; DQ 2884

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