

AIR EMISSION PERMIT NO. 03700014-004

IS ISSUED TO

Northern Natural Gas Company

NORTHERN NATURAL GAS COMPANY - FARMINGTON

4685 212th Street West

Farmington, Dakota County, Minnesota 55024

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	Issuance Date	Action
Total Facility Operating Permit - Reissuance	05/03/2002	03/09/2006	003
Moderate Amendment	01/26/2007	See below	004

This permit authorizes the Permittee to operate and construct 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/Major for New Source Review

Issue Date: October 18, 2007

Expiration: 03/09/2011

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 Farmington Compressor Station is used to pressurize natural gas for transport through the pipeline system. The facility is composed of a compressor building which houses five natural gas-fired reciprocating compressor engines and a natural gas-fired turbine that provide power to the pipeline compressor. There is also a diesel-fired electric generator for emergency power.

ACTION 003

Action 003 was the reissuance of the title V operating permit.

ACTION 004

Action 004 is a moderate amendment to authorize operation of a new diesel-fired emergency generator. A June 12, 2007 Minnesota Pollution Control Agency letter authorized construction of the new emergency generator according to Minn. R. 7007.1450, subp. 7.B. This generator was constructed in 1997 and is from the Permittee's Burdett, Kansas compressor station.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

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
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
<p>These requirements apply where there is a reasonable possibility that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test described in Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project.</p> <p>Even though a particular modification is not subject to New Source Review, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.</p>	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following:</p> <ol style="list-style-type: none"> 1. Project description 2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. <p>The Permittee shall maintain records of this documentation.</p>	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
<p>The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <ol style="list-style-type: none"> a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. 	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply and upon written request demonstrate compliance, 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.	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. 7009.0100-7009.0080.

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

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 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, B, and/or C.	Minn. R. ch. 7017
Performance Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche or CD Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
RECORDKEEPING	hdr
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)
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)
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**A-3**

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

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
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. Any application for a major amendment for authorization of a major modification shall include modeling that at a minimum updates the May 11, 1998 PSD nitrogen oxides increment analysis for this facility.	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)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
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**A-4**

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 001 Natural Gas Reciprocating Engine 1**Associated Items:** SV 001

What to do	Why to do it
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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.01 lb/hr or 0.0006 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 002 Natural Gas Reciprocating Engine 2**Associated Items:** SV 002

What to do	Why to do it
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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.01 lb/hr or 0.0006 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 003 Natural Gas Reciprocating Engine 3**Associated Items: SV 003**

What to do	Why to do it
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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.01 lb/hr or 0.0006 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 004 Natural Gas Reciprocating Engine 4**Associated Items:** SV 004

What to do	Why to do it
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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.01 lb/hr or 0.0006 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 005 Natural Gas Reciprocating Engine 5**Associated Items:** SV 005

What to do	Why to do it
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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.01 lb/hr or 0.0006 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 007 Natural Gas Turbine Compressor

What to do	Why to do it
EMISSION AND OPERATING 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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning natural gas - maximum hourly emission is 0.19 lb/hr or 0.0034 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Nitrogen Oxides: less than or equal to 0.0157 percent by volume at 15 percent oxygen and on a dry basis, at rated load.	40 CFR Section 60.332(d), Minn. R. 7011.2350
Sulfur Content of Fuel: less than or equal to 0.8 percent by weight OR Sulfur Dioxide: less than or equal to 0.015 percent by volume at 15 percent oxygen on a dry basis.	40 CFR Section 60.333, Minn. R. 7011.2350
Permitted Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp. 35a
MONITORING AND REPORTING REQUIREMENTS	hdr
Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, a gas chromatograph or an approved alternative method.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
Sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR Section 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
Sulfur Monitoring: If, after the first 2 years of sulfur monitoring, the sulfur content of fuel shows little variability and, when calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR Section 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
Recordkeeping: Records of sample analyses and fuel supply pertinent to the custom fuel-monitoring schedule shall be retained for a period a five (5) years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
Notification of noncompliance: Should any sulfur analysis indicate noncompliance with 40 CFR Section 60.333, the Permittee shall notify the MPCA of such excess emissions and the custom fuel monitoring schedule shall be re-examined by the Administrator. Sulfur monitoring shall be conducted weekly during the interim period when this custom fuel-monitoring schedule is being re-examined.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
Reporting: If there is a change in fuel supply, the Permittee must notify the MPCA of such change for re-examination of the custom fuel-monitoring schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.	40 CFR Section 60.334(h)(4) (previously approved custom schedule); Minn. R. 7011.2350
The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR Section 60.331(u), regardless of whether an existing custom schedule approved by the administrator for Subpart GG requires such monitoring. The owner or operator shall use one of the sources of information in 40 CFR Section 60.334(h)(3)(i) or (ii) to make the required demonstration.	40 CFR Section 60.334(h)(3), Minn. R. 7011.2350

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

10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

Subject Item: EU 008 Emergency Diesel Generator**Associated Items:** SV 008

What to do	Why to do it
This emergency generator (Cummins KTA19-G2 600 hp) replaces the previous emergency generator EU 006 (Cummins LT A10-G1 380 hp).	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 0.5 lbs/million Btu heat input (this is met through the equipment capacity burning diesel fuel - maximum hourly emission is 0.82 lb/hr or 0.20 lb/MMBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel Type: diesel fuel only, by design	Minn. R. 7005.0100, subp. 35a
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies as an emergency unit under the U.S. EPA memorandum entitled "Calculating Potential to Emit 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 diesel fuel, certifying the sulfur content does not exceed 0.49% by weight.	Minn. R. 7007.0800, subps. 4 & 5

TABLE B: SUBMITTALS

B-1 10/18/07

Facility Name: Northern Natural Gas Co - Farmington
Permit Number: 03700014 - 004

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

Facility Name: Northern Natural Gas Co - Farmington
Permit Number: 03700014 - 004

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

TABLE B: RECURRENT SUBMITTALS**B-3** 10/18/07

Facility Name: Northern Natural Gas Co - Farmington

Permit Number: 03700014 - 004

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 03/09/2006 . 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 starting 03/09/2006 (for the previous calendar year). To 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

APPENDIX B**Facility Name:** Northern Natural Gas Company - Farmington**Permit Number:** 03700014-004**Modeling Parameters**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Emission Unit ID	Stack Height	Stack Diameter	Exhaust Temp	Exhaust Flow	Emission Rate – May 1998 model (lb/hr)	Emission Rate – February 1998 Test (lb/hr)	Emission Rate – May 2002 application (lb/hr)
	(ft)	(ft)	(°F)	(acfm)			
EU001	50	1.3	689	11993	72.2	72.2 ⁽¹⁾	75.66
EU002	50	1.3	689	11993	72.2	72.2 ⁽¹⁾	75.66
EU003	50	1.3	689	11993	72.2	72.2	75.66
EU004	50	2.0	777	20840	87.2	87.2	130.56
EU005	50	2.0	777	20840	87.2	87.2 ⁽²⁾	130.56
EU006	REMOVED 09/2007						
EU007	50	1.3	841	70902	3.91	NA	5.69
EU 008	Emergency generator installed 09/2007; Not included in modeling						

⁽¹⁾ Permit required that one of EU001, EU002 or EU003 be tested. EU003 was tested, EU001 and EU002 are assumed to have the same emission rate.

⁽²⁾ Permit required that one of EU004 or EU005 be tested. EU004 was tested, EU005 is assumed to have the same emission rate.

APPENDIX C**Facility Name:** Northern Natural Gas Company - Farmington**Permit Number:** 03700014-004**Insignificant Activities and Applicable Requirements**

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
3(A)	Fuel use: space heaters fueled by, kerosene, natural gas, or propane. <i>There are 13 natural gas fired space heaters, with a total combined rating of 1.14 MMBtu/hr. Combined potential emissions are 0.5 tpy or less for each criteria pollutant, total HAPs are negligible.</i>	Minn. R. 7011.0510/0515
3(H)	Miscellaneous:	
	4. brazing, soldering or welding equipment; <i>Arc-welding performed on-site consumes approximately 660 pounds of electrode per year.</i>	Minn. R. 7011.0710/0715
3(I)	Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than: 1. 4,000 lbs/year of carbon monoxide; and 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone. <i>Small diesel fired generator (0.26 MMBtu/hr). Potential NO_x emissions are 0.3 tpy.</i>	Minn. R. 7011.2300
3(J)	Fugitive Emissions from roads and parking lots. <i>Facility includes unpaved roads and parking lots.</i>	Minn. R. 7011.0150

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 03700014-004

This Technical Support Document (TSD) is for parties interested in the 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 permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 4922)
Northern Natural Gas 1111 South 103 rd Street Omaha, Nebraska 68124	4685 212 th Street West Farmington Dakota County
Contact: Ronald C. Beidelman Northern Natural Gas 1650 West 82 nd Street Suite 1250 Bloomington, MN 55431 Phone: 952-887-1712 Ron.Beidelman@nngco.com	

1.2. Facility Description

This facility is a pipeline compressor station on a natural gas pipeline. Northern Natural Gas (Permittee) operates five internal combustion reciprocating engines and one gas turbine to compress natural gas in the pipeline so that it flows to the next station.

1.3 Description of the Activities Allowed by this Permit Action

This is a moderate amendment to authorize operation of a new diesel-fired emergency generator. A June 12, 2007 Minnesota Pollution Control Agency letter authorized construction of the new emergency generator according to Minn. R. 7007.1450, subp. 7.B.

This generator was constructed in 1997 and is from the Permittee's Burdett, Kansas compressor station. Potential emissions are calculated at 500 hours of operation per year as provided by a September 6, 1995 U.S. Environmental Protection Agency (EPA) memo.

1.4. Facility Emissions:

Table 1. Title I Emissions Increase Summary

Pollutant	Emissions Increase from the Modification (tpy)	PSD/112(g) Significant Thresholds for major sources (tpy)	NSR/112(g) Review Required? (Yes or No)
PM	0.17	25	NO
PM ₁₀	0.17	15	NO
NO _x	3.80	40	NO
SO ₂	0.21	40	NO
CO	0.14	100	NO
VOC	0.79	40	NO
Total HAPS	0.004	10/25	NO

Table 2. Non-Title I Emissions Increase Summary

Pollutant	After Change (lb/hr)	Before Change (lb/hr)	Net Change (lb/hr)	Insignificant Modification Threshold (lb/hr)	Minor Amendment Threshold (lb/hr)	Type of Amendment (Minor or Moderate)
PM ₁₀	0.66	0	0.66	0.855	3.42	
NO _x	15.20	0	15.20	2.28	9.13	Moderate
SO ₂	0.82	0	0.82	2.28	9.13	
CO	0.54	0	0.54	5.70	22.80	
VOC	3.17	0	3.17	2.28	9.13	
Lead	0	0	0	0.025	0.11	

Table 3. Facility Classification

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

2. Regulatory and/or Statutory Basis of Permit Requirements

New Source Review

The facility is an existing major source under New Source Review regulations. The change authorized by this permit does not trigger New Source Review.

Part 70 Permit Program

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

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to EU 008. Part 60 subpart IIII does not apply to EU 008 as described at § 60.4200(a)(1)-(3) because EU 008 is older than model year 2007, construction was commenced before July 11, 2005 ('construction' in this context is the date that the engine was ordered by the Permittee), and the Permittee did not modify or reconstruct EU 008 after July 11, 2005.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The source is a major HAP source and the new 600 bhp 400 kw emergency generator is an affected facility according to part 63 subpart ZZZZ because it has a rated horsepower greater than 500 bhp. This facility meets the definition of an existing stationary RICE at Section 63.6590(a)(1) because it was constructed before December 19, 2002. According to Section 63.6590(b)(3), existing emergency stationary RICE are not subject to any requirements of subparts ZZZZ or A.

Minnesota State Rules

The emergency generator will be subject to Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Environmental Review

This modification does not trigger environmental review requirements because this project is not in a mandatory source category listed at Minn. R. 4410.4300.

Table 4. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
EU 008	Minn. R. 7011.2300	SO ₂ and opacity standards
	Minn. R. 7007.0800, subp. 2	Use of EPA September 6, 1995 PTE memo for emergency generators to calculate potential to emit

3. Technical Information

NO_x Ambient Impacts and Past NO_x Modeling: In 1998, the Permittee submitted NO_x modeling dated May 11, 1998 for determining compliance with the NAAQS, MAAQS, and PSD increment. At that time, the facility was composed of the five existing reciprocating engines, one gas turbine, and the existing diesel emergency generator. Staff review of the data determined that the facility was in compliance with NAAQS, MAAQS, and increment for NO_x. No requirement to revise the modeling was added to the operating permit for any subsequent changes at the facility that would change NO_x ambient impacts because the annual NO_x increment consumption 15.6 µg/m³ was more than 1 NO_x SIL (1.0 µg/m³) below the NO_x increment (25 µg/m³). A requirement was added to the permit clarifying that any future application for a PSD major modification shall update the May 11, 1998 PSD nitrogen oxides increment analysis for this facility.

This permit action authorizes operation of a new somewhat larger diesel emergency generator in place of the existing generator. No additional NO_x modeling is required by this change based on the discussion above regarding the 1998 modeling.

Finally, note that EU 004 and EU 005 stack diameter was corrected in the Appendix from 1.3 feet to 2.0 feet for each unit, based on the data in the 1998 modeling submittal. The diameter listed in the delta facility description is 2.0 feet for each unit and was not revised.

3.1 Emission Calculations

Emissions were calculated according to the EPA emergency generator memorandum dated September 6, 1995.

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.

Table 5 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 5. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU 008	≤0.5 lb SO ₂ / mmBtu (Minn. R. 7011.2300)	Fuel certifications of sulfur content	

3.3 Public Notice and EPA Review

Minn. R. 7007.0850, subp. 2.D. says that public notice for a moderate permit amendment is only necessary if it is determined that the moderate amendment involves issues that generate or are likely to generate significant material adverse comment from the public, based on previous adverse public comment on the proposed amendment or related issues. It is the opinion of the MPCA that the replacement of the existing emergency generator EU 006 with another emergency generator EU 008 does not involve any issues that are likely to generate significant material adverse comment from the public. Therefore this moderate amendment will not go through public comment.

EPA 45-day review period: October 3, 2007 - November 17, 2007.

On October 11, 2007 MPCA staff received an email from EPA Region V staff indicating they had no comments on the draft permit. Based on EPA input and the lack of objection to permit issuance, the permit was issued prior to completion of the 45-day review period as allowed by Minn. R. 7007.1450, subp. 6.

4. Conclusion

Based on the information provided by Northern Natural Gas, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 03700014-004, 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)
 Scott Parr (enforcement)
 Toni Volkmeier (peer reviewer)

AQ File No. 624B; DQ 1368

Attachments: EU 008 Emissions Calculations