

AIR EMISSION PERMIT NO. 06900015-004

IS ISSUED TO

VIKING GAS TRANSMISSION COMPANY

Viking Gas Transmission - Humboldt
County Road 6 (1805 360th Street)
Humboldt, Kittson County, MN 56731

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

Permit Type	Application Date	Issue Date	Action Number
Total Facility Operating Permit	09/15/1995	06/08/1999	001
Administrative Amendment	06/28/1999	06/28/1999	002
Administrative Amendment	01/02/2003	02/19/2003	003
Total Facility Operating Permit	11/17/2003	See below	004

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

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

Issue Date: March 16, 2005

Expiration: March 16, 2010
Title I Conditions do not expire.

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

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

The facility is a natural gas compressor station located near Humboldt, Minnesota. The station consists of five reciprocating engines (all are identical Clark TLA-5 2-stroke lean burn 1700 hp engines), one emergency generator (4-stroke rich burn), and one water jacket heater. The natural gas-fired engines drive compressors which pressurize the natural gas in the pipeline causing it to flow to the next compressor station. All engines and the heater are only capable of burning natural gas.

ACTION 002

PER 002 revised fuel type recordkeeping requirements for the water jacket heater EU 007.

ACTION 003

PER 003 incorporated an owner name change.

ACTION 004

PER 004 is a re-issuance of the Title V operating permit. This permit adds a requirement allowing the use of pipeline natural gas-fired two-stroke lean burn temporary reciprocating internal combustion engines at the facility. The temporary engines may be used in place of EU 001, 002, 003, 004, or 005 for up to 12 consecutive months, providing certain permit requirements are met.

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 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
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
Operating and/or production limits will be placed on emission units based on operating conditions during compliance testing. Limits set as a result of a compliance test (conducted before or after permit issuance) apply until new operating/production limits are set following formal review of a performance test as specified by Minn. R. 7017.2025.	Minn. R. 7017.2025
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, 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.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 004

Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Retain all records at the stationary source 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 strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 004

Subject Item: GP 001 Reciprocating Engines

Associated Items: EU 001 Reciprocating Engine #1A (Clark 1700 hp 2SLB)
 EU 002 Reciprocating Engine #2A (Clark 1700 hp 2SLB)
 EU 003 Reciprocating Engine #3A (Clark 1700 hp 2SLB)
 EU 004 Reciprocating Engine #4A (Clark 1700 hp 2SLB)
 EU 005 Reciprocating Engine #5A (Clark 1700 hp 2SLB)
 EU 006 Reciprocating Engine-Emergency Generator (4SRB)

What to do	Why to do it
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (applies individually to each emission unit in GP 001).	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained (applies individually to each emission unit in GP 001).	Minn. R. 7011.2300, subp. 1
Fuel Type Restriction: Natural Gas Only	Minn. R. 7007.0800, subp. 2
<p>Temporary Reciprocating Internal Combustion Engines (TRICE): The Permittee may operate a pipeline natural gas-fired two-stroke lean burn TRICE at the facility in place of EU 001, 002, 003, 004, or 005 for up to 12 consecutive months.</p> <p>TRICE shall:</p> <ol style="list-style-type: none"> 1. meet requirements of 40 CFR part 63, subp. ZZZZ when and if applicable; 2. meet all applicable requirements in this subject item; 3. exhaust through a stack with a height no less, a diameter no greater, and an exhaust temperature no less than the stack for the RICE it replaces; 4. not operate at the same time as the engine it replaces, except for up to eight hours during startup and shutdown transitions; 5. have potential emission rates (in lb/hr) for all pollutants equal to or less than permit emission limits and potential emission rates of the engine it replaces. <p>For each TRICE record start & stop dates, manufacturer, model & serial numbers, and the lb/hr potential emission rates for all pollutants.</p>	Minn. R. 7007.0800, subp. 2
Refer to Subject Item EU 006 for additional requirements that apply to EU 006.	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 004

Subject Item: EU 006 Reciprocating Engine-Emergency Generator (4SRB)**Associated Items:** GP 001 Reciprocating Engines

SV 006

What to do	Why to do it
Operating Hours: less than or equal to 720 hours/year for EU 006 when EU 001, EU 002, EU 003, EU 004, or EU 005 are in operation. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7009.0020; Minn. R. 7009.0080
Recordkeeping: By the end of each month, calculate and record the EU 006 operating hours for the previous month, for all periods when EU 001, EU 002, EU 003, EU 004, or EU005 were also operating. By January 30th of each calendar year, calculate and record the EU 006 operating hours for the previous calendar year, for all periods when EU 001, EU 002, EU 003, EU 004, or EU 005 were also operating.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 004

Subject Item: EU 007 Water Jacket Heater**Associated Items:** SV 007

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Fuel Type Restriction: Natural Gas Only	Minn. R. 7007.0800, subp. 2
Operating Hours: less than or equal to 2150 hours/year for EU 007 when EU 001, EU 002, EU 003, EU 004, or EU 005 are in operation. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7009.0020; Minn. R. 7009.0080
Recordkeeping: By the end of each month, calculate and record the EU 007 operating hours for the previous month, for all periods when EU 001, EU 002, EU 003, EU 004, or EU005 were also operating. By January 30th of each calendar year, calculate and record the EU 007 operating hours for the previous calendar year, for all periods when EU 001, EU 002, EU 003, EU 004, or EU005 were also operating.	Minn. R. 7007.0800, subp. 5(C)

TABLE B: SUBMITTALS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt
Permit Number: 06900015 - 004

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

03/16/05

Facility Name: Viking Gas Transmission - Humboldt
Permit Number: 06900015 - 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

03/16/05

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015 - 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 06/08/1999 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 06/08/1999 (for the previous calendar year). Submitt the certification on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This certification covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year starting 06/08/1999 (April 1). To be submitted on a form approved by the Commissioner.	Total Facility
Report	due 2 days after end of each year following Discovery of Deviation 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.	Total Facility

APPENDIX MATERIAL

Facility Name: Viking Gas Transmission - Humboldt

Permit Number: 06900015-004

Insignificant Activities Required to be Listed

7007.1300 subp. 3.A.

Natural gas-fired space heaters:

garage (4) @ 80,000 Btu/hr each

warehouse (1) @ 200,000 Btu/hr

7007.1300, subp. 3.I.(2)

Solvent use less than 200 gallons per year

7007.1300, subp. 3.H.(3)

welders (2)

acetylene torch (1)

TECHNICAL SUPPORT DOCUMENT
For
DRAFT/PROPOSED AIR EMISSION PERMIT NO. 06900015-004

This technical support document 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:

Applicant/Address	Facility Address (SIC Code: 4922)
Viking Gas Transmission Company P.O. Box 542500 Omaha, Nebraska 68154-8500	1805 360 th Street; County Road 6 Humboldt Kittson County
Contact: Mr. Jay Muschenheim Phone: (402) 492-7464	

1.2. Description of the Permit Action

This permit action is a reissuance of the title V operating permit.

The facility is a natural gas compressor station located near Humboldt, Minnesota. The station consists of five reciprocating engines (all are identical Clark TLA-5 2-stroke lean burn 1700 hp engines), one emergency generator (4-stroke rich burn), and one water jacket heater. The natural gas-fired engines drive compressors which pressurize the natural gas in the pipeline causing it to flow to the next compressor station. All engines and the heater are only capable of burning natural gas. This station is similar to five other Viking Gas Transmission facilities in Minnesota, except the Humboldt station uses only reciprocating engines and does not use a combustion turbine.

1.3 Description of any Changes Allowed with this Permit Issuance

This permit adds a requirement allowing the use of pipeline natural gas-fired two-stroke lean burn temporary reciprocating internal combustion engines at the facility. The temporary engines may be used in place of EU 001, 002, 003, 004, or 005 for up to 12 consecutive months, providing certain permit requirements are met.

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

Permit Number and Issuance Date	Action Authorized
06900015-003	Change of ownership from Xcel Energy to Border Viking

Permit Number and Issuance Date	Action Authorized
February 19, 2003	Company
06900015-002 June 28, 1999	Amend EU 007 fuel recordkeeping language

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Formaldehyd e tpy	All HAPs tpy
Total Facility Limited Potential Emissions	14.9	14.9	0.18	508	121	37	16.9	24.5
Total Facility Actual Emissions (2002)	5	5	0.06	80	40	12.4	HAPs not reported in emission inventory	

Table 2. Facility Classification

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

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review regulations. No changes are authorized by this permit. The temporary reciprocating internal combustion engine allowed under GP 001 for up to 12 consecutive months, would be a physical change as defined under 40 CFR §52.21(b)(2)(i). However, use of a temporary engine would not constitute a major modification under NSR because the temporary unit meets the definition of a replacement unit as defined under §52.21(b)(33) and therefore, no significant net emissions increase is permitted.

Note that §52.21(b)(33)(iv) states:

- (iv) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is

enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.

This permit prohibits simultaneous operation of an existing engine (the replaced unit) and the temporary engine (the replacement unit). Although the permit allows operation of the replaced unit after the replaced unit is repaired, the permit meets the intent of §52.21(b)(33)(iv) because when the replaced engine is brought back into service, it would be considered a replacement unit to replace the temporary engine.

For determining whether or not a significant net emission increase is deemed to occur, 40 CFR §52.21 allows for a comparison of future actual emissions minus past actual emissions for existing units. As shown below, a replacement unit is defined as an existing unit. The replacement unit is not anticipated to be used more than the replaced unit, and the permit does not allow the replacement unit to have a higher emission rate of any criteria pollutant.

40 CFR 52.21(a)(2)(c) states that:

Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph (b)(41) of this section) and the baseline actual emissions (as defined in paragraphs (b)(48)(i) and (ii) of this section), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

40 CFR 52.21(b)(7) states that:

(7) *Emissions unit* means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric utility steam generating unit as defined in paragraph (b)(31) of this section. For purposes of this section, there are two types of emissions units as described in paragraphs (b)(7)(i) and (ii) of this section.

(i) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.

(ii) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (b)(7)(i) of this section. **A replacement unit, as defined in paragraph (b)(33) of this section, is an existing emissions unit.** (Emphasis added.)

If the Permittee should make the temporary replacement into a permanent replacement (in this case this occurs if the temporary engine is retained and used at the facility for more than 12 consecutive months), the permanent replacement engine would qualify as a replacement unit as defined at §52.21(b)(33). And because §52.21(b)(7) states that a replacement unit is an existing unit, the Permittee would have to verify (and keep records of that verification as required by §52.21(r)(6)) that there would not be a significant emissions increase due to the replacement.

Part 70 Permit Program

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

New Source Performance Standards (NSPS)

No New Source Performance Standards apply to the emission units at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

This facility is a major source of HAPs (formaldehyde). Part 63 subpart ZZZZ applies to reciprocating internal combustion engines. EU 001 through EU 005 are existing 2-stroke lean burn engines and EU 006 is an existing 4-stroke rich burn engine. §63.6590(b)(3) states in part that existing spark ignition 2-stroke lean burn engines are not subject to subp. A or subp. ZZZZ in part 63. Therefore, EU 001 - EU 005 will not be subject to subpart ZZZZ unless and until any of the engines are reconstructed. In addition, according to §63.6590(a) and §63.6590(b)(3), EU 006 is not subject to the subpart because it is rated at 120 hp and is an emergency use-only engine.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
GP 001 (EU 001 - EU 006)	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines
EU 006	Minn. R. 7009.0020	Operating hours limit based on NO _x modeling conducted before issuance of permit No. 06900015-001*
EU 007	Minn. R. 7011.0510	Standards of Performance for Existing Indirect Heating Equipment
	Minn. R. 7009.0020	Operating hours limit based on NO ₂ modeling conducted before issuance of permit No. 06900015-001*

*This is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act. These permit requirements are mandated by state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required by state law. State law requirements are not enforceable by U.S. EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical Information

PM₁₀ Ambient Air Analysis: Screening of Facility ambient air impacts (conducted as part of the 2004 capped permit rulemaking) identified a potential problem for the 24-hour PM₁₀ NAAQS of 150 ug/m³. Refined modeling conducted by MPCA staff resolved this issue, as the results predicted the total PM₁₀ emissions from the facility would produce a 24-hour PM₁₀ ambient concentration of 4.3E+01 ug/m³ (~29% of the 24-hour PM₁₀ standard), and total annual PM₁₀ emissions from the facility would produce an annual concentration of 5.3E+00 ug/m³ (less than 11% of the annual PM₁₀ NAAQS).

NOx Modeling Conducted Prior To Permit No. 06900015-001 Issuance: NOx modeling was conducted in the late 1990's in response to public concern about NOx emissions from pipeline compressor stations. Modeling resulted in a limit on the hours of operation of the emergency generator and the water jacket heater in order to avoid exceeding the annual NOx ambient air quality standard.

Removal of Fuel Type Recordkeeping Requirements: The facility is a natural gas pipeline compressor station. Fuel is limited for all combustion sources to natural gas. The fuel is obtained from the pipeline. As a result, the requirement present in the original title V permit for recording fuel type is unnecessary because if no natural gas is available for the compressor engines, then there will be no need to operate the engines because there will be no natural gas to pump through the pipeline.

Community Involvement: The initial information gathering phase revealed that no complaints had been received for this facility. The facility is remotely located in a rural area. Five similar Viking Gas Transmission title V re-issuance permits were issued in 2003 and no comment was received regarding these permits. Therefore, it is the opinion of the permit writer that no additional community involvement is warranted.

3.1 Potential to Emit Calculations

All emission calculations are based on AP-42 emission factors for natural gas-fired reciprocating engines except for NOx for EU 001 through EU 005.

EU 001 NOx emissions are based on stack testing conducted in 1998. Although this testing is older than 5 years (which is the cutoff for use of test data for emission inventory purposes), the EU 001 NOx test results were used to calculate EU 001 NOx emissions because the test results were higher than the AP-42 emission factor.

NOx stack testing was also conducted in 1998 for EU 002 - EU 005. However, the Permittee had a contractor implement NOx reduction modifications in 1998, with a guaranteed 4.0 g /bhp-hr NOx emission rate. Calculations of emissions were done with this guaranteed rate and resulted in somewhat higher NOx emissions for EU 002 - EU 005, than with the 1998 stack test results for these emission units.

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
Reciprocating Internal Combustion Engines GP 001	Minn. R. 7011.2300 SO ₂ and opacity limits	none	GP 001 emission units can combust only natural gas. Natural gas is a clean fuel and should produce 0% opacity when combusted in the engines and SO ₂ emissions much less than allowed.
Emergency Generator EU 006	Minn. R. 7009.0020	Operating hours recordkeeping	Recordkeeping of operating hours to determine compliance with annual hours limit
Indirect Heating Equipment EU 007	Minn. R. 7011.0510 PM and opacity limits	none	EU 007 can combust only natural gas. Design based PTE for each unit (AP-42) is 0.0072 compared to the rule limit of 0.6 lb/mmBtu. Natural gas is a clean fuel and should produce 0% opacity when combusted in the heater.
	Minn. R. 7009.0020	Operating hours recordkeeping	Recordkeeping of operating hours to determine compliance with annual hours limit

3.3 Insignificant Activities

Insignificant activities are listed in the Appendix to the permit.

3.4 Comments Received

Public Notice Period: January 5, 2005 - February 3, 2005

EPA 45-day Review Period: January 5, 2005 - February 18, 2005

No comments were received from the public during the public notice period. During the public notice, the compliance certification requirement was revised by the permit writer by adding language for submittal of a copy of the certification to the EPA Region V office in Chicago, IL. No comments were received from EPA during their review period.

4. Conclusion

Based on the information provided by Northern Border Partners, L.P. Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 06900015-004 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Marshall Cole (permit writer/engineer)
 Cary Hernandez (enforcement)
 Jenny Reinertsen (peer reviewer)

Attachment: Emissions Calculation Spreadsheets