

**AIR EMISSION PERMIT NO. 06900015- 001
IS ISSUED TO**

Northern States Power Company

Viking Gas Transmission - NSP - Humboldt
Natural Gas Compressor Station 2201
Humboldt, Kittson County, Minnesota 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
Total Facility Operating Permit

Application Date
September 15, 1995

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

Permit Type: Federal; Part 70

Issue Date: June 8, 1999

Expiration: June 8, 2004

All Title I Conditions do not expire.

Don Smith

Rodney E. Massey
District Manager
South District

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

DL:lk

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

The permit shield, however does not apply to:

1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under Part C of Title I of the Clean Air Act.
2. Any state ambient air quality standard under Minn. R. ch. 7009.
3. The state noise pollution control rules, Minn. R. ch. 7030.

FACILITY DESCRIPTION:

The facility is a natural gas compressor station located in Humboldt, Minnesota. The station consists of four reciprocating engines, one water jacket heater and one reciprocating engine/emergency generator; all of which burn natural gas. Four of the reciprocating engines drive compressors which compress natural gas in the pipeline, causing the gas to flow to the next compressor station. The fifth reciprocating engine serves an emergency generator. The engines and water jacket heater are only capable of burning natural gas.

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

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

Subject Item:**Total Facility**

What to do	Why to do it
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
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
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Record keeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original 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

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

Subject Item: GP 001 Reciprocating Engines**Associated Items:** EU 001 Reciprocating Engine #1A

EU 002 Reciprocating Engine #2A

EU 003 Reciprocating Engine #3A

EU 004 Reciprocating Engine #4A

EU 005 Reciprocating Engine #5A

EU 006 Reciprocating Engine-Emergency Generator

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
Fuel Type Recordkeeping: The Permittee shall keep a record of the type of fuel combusted in the emission units in GP 001. Fuel type records shall be entered no less frequently than once at the end of each calendar year.	Minn. R. 7007.0800, subp. 5
Refer to Subject Item EU 006 for additional requirements that apply to EU 006.	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

Subject Item: EU 006 Reciprocating Engine-Emergency Generator**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, EU004, or EU005 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

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

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, EU004, or EU005 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)
Fuel Type Recordkeeping: The Permittee shall keep a record of the type of fuel combusted in EU 007. Fuel type records shall be entered no less frequently than once at the end of each calendar half year.	Minn. R. 7007.0800, subp. 5

TABLE B: SUBMITTALS

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt
Permit Number: 06900015 - 001

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt
Permit Number: 06900015 - 001

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

06/08/99

Facility Name: Viking Gas Transmission - NSP - Humboldt

Permit Number: 06900015 - 001

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.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner. The report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility
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

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 0950004-001

This Technical Support Document (TSD) is for all the interested parties of the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number	Facility Address (SIC Code: 4922)
Northern States Power 414 Nicollet Mall Minneapolis, Minnesota 55402	Viking Gas Transmission Company

1.2. Description Of The Facility:

The facility is a natural gas compressor station located in Humboldt, Minnesota. The station consists of five reciprocating engines, one water jacket heater and one emergency generator. 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 are only capable of burning natural gas.

The permit action also includes limitations on hours of operation for emission unit 006 and emission unit 007 to ensure that the facility will maintain compliance with the National Ambient Air Quality Standard (NAAQS) for Nitrogen Oxide (NO_x). Compliance with the limitation will be demonstrated by tracking the hours of operation for emission units 006 and 007 when they operate in conjunction with emission units 001, 002, 003, 004, or 005.

1.3 Description of all amendments issued since the issuance of the last Total Facility Permit and to be included in the Part 70 Permit.

The facility currently has a General Permit, therefore, there are no amendments considered in this Total Facility Permit.

1.4. Facility Emissions:

Table 1. *Total Facility Potential to Emit Summary:

EU No.	SV No.	Emission Unit Description	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
001	001	Reciprocating Engine-1	0.61	0.61	0.04	208.49	26.37	5.08		19.93	20.05
002	002	Reciprocating Engine-2	0.61	0.61	0.04	208.49	26.37	5.08		19.93	20.05
003	003	Reciprocating Engine-3	0.61	0.61	0.04	208.49	26.37	5.08		19.93	20.05
004	004	Reciprocating Engine-4	0.61	0.61	0.04	208.49	26.37	5.08		19.93	20.05
005	005	Reciprocating Engine-5	0.61	0.61	0.04	208.49	26.37	5.08		19.93	20.05
006	006	Generator	0.09	0.09	0.01	29.78	3.77	0.73			
007	007	Water Jacket Heater	0.21	0.21	0.01	1.75	0.37	0.07			

Total Facility Limited Potential Emissions*	3.36	3.36	0.20	1,073.98	135.97	26.21		99.65	100.26
Total Facility Actual Emissions	1.73	1.73	0.09	582.74	73.71	14.21		55.8	56.07

*These are the limited potential emissions from column 3 in GI-07 except that they have been verified and corrected as need be by MPCA staff. These are the potential emissions that would appear in a public notice.

Table 2. Facility (TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	NO _x		
NAAR (list pollutant)			
Part 70 Permit Program (list pollutant)	NO _x , CO, HAPs		

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

2. Regulatory and/or Statutory Basis

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

Regulatory Overview of Facility

Table 3. Regulatory Overview

EU, No.	Applicable Regulations	Comments
EU007	Minn. R. 7011.0510, subp. 1	Total Particulate Matter: less than or equal to .6 lbs/million BTU heat input.
EU001 - EU007	Minn. R. 7011.2300, subp.1	Opacity: less than or equal to 20 percent opacity. Opacity shall not exceed 20 percent once operating temperatures have been obtained.
EU005	Title I Condition: to avoid violation of 40 CFR Section 50.11; Minn. R. 7009.0020	Limited to 720 hours per calendar year when operated in conjunction with emission units 001, 002, 003, or 006
EU006	Title I Condition: to avoid violation of 40 CFR Section 50.11; Minn. R. 7009.0020	Limited to 2,150 hours per calendar year when operated in conjunction with emission units 001, 002, 003, or 006
EU005, EU006	Title I Condition: recordkeeping to avoid violation of 40 CFR Section 50.11; Minn. R. 7007.0800, subp. 5(C)	The permittee shall maintain records of operating hours, to the nearest hour, for EU 004 and EU 005, when emission units 001, 002, 003, or 006 are also operating.

3. Technical Information:

This Total Facility permit is for an existing major source under New Source Review (NSR).

There are three operating scenarios included with this permit: 1) Emission unit 004 will not operate more than 720 hours per calendar year while emission units 001, 002, 003, or 006 are operating. Emission unit 005 will not operate more than 2,150 hours per calendar year while emission units 001, 002, 003, or 006 are operating, 2) Emission units 001, 002, 003 or 006 may operate 8760 hours per year, and 3) Emission units 004 and 005 may operate 8760 hours per year if they are the only two units in operation.

Emission units 004 and 005 will record the hours of operation for each 12-month calendar year when they are operated in conjunction with any other emission unit at the facility.

NSP may choose to include in the records, all EU 004/006 operating hours for a given month, and not just the EU 004/006 operating hours when the other emission units are also operating, for the sake of simplifying recordkeeping.

4. Conclusion

Based on the information provided by the Viking Natural Gas Compressor Station, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

Denise Leezer
Marshall Cole
Stuart Arkley