

AIR EMISSION PERMIT NO. 15300004- 005
(Part 70 Reissuance)

IS ISSUED TO

Oneok Partners LP
VIKING GAS TRANSMISSION - CUSHING
31888 400th Street
Cushing, Morrison County, MN 56443

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
Total Facility Operating Permit – Reissuance	12/24/07

This permit supersedes Permit No. 15300004-004, and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/Major for NSR

Issue Date: December 24, 2008

Expiration: December 24, 2013
All Title I Conditions do not expire.

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

for Paul Eger
Deputy 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:

This facility is located on a natural gas transmission pipeline with compressor stations located in Minnesota from north to south, at Humboldt, Angus, Ada, Frazee, Cushing, and Milaca.

The Cushing facility is a natural gas compressor station consisting of three 2-stroke lean burn reciprocating internal combustion compressor engines (Emission Unit – EU 001, EU 002, and EU 003), one lean pre-mix combustion turbine compressor engine (EU 006), one 4-stroke rich burn reciprocating internal combustion engine emergency generator (EU 004), and one water jacket heater (EU 005). All units combust only pipeline natural gas obtained from the pipeline. The four compressors pressurize the natural gas in the pipeline causing it to flow to the next compressor station. The water jacket heater provides heat when the compressor engines are not operating.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-1**

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

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

Subject Item:**Total Facility**

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
Permit Appendices: This permit contains one appendix as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW (NSR)	hdr
<p>These requirements apply if a reasonable possibility (RP) as defined in 40 CFR Section 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of Section 52.2(r)(6)(vi)(a).</p> <p>Even though a particular modification is not subject to NSR, or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by 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); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 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); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 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); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
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)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 and 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, 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 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 stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr
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)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

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)
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
When the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. For nonexpiring permits, these records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
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.	Minn. R. 7007.1150 through Minn. R. 7007.1500

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

For changes that do not require a permit amendment: - The Permittee shall submit a Part 1 MACT application within 30 days of startup of any 112(j) affected source. The application shall meet the requirements of 40 CFR Section 63.53(a). - The Permittee shall submit a Part 2 MACT application within 90 days of startup of any 112(j) affected source. The application shall meet the requirements of 40 CFR Section 63.53(b). 112(j) affected source is defined in 40 CFR Section 63.51. As of permit issuance, 112(j) affected sources include industrial, commercial, and institutional boilers and process heaters; brick and structural clay products manufacturing; clay ceramics manufacturing.	40 CFR Section 63.52(b)(1) and 63.52(e)(1)
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. The Permittee shall submit this 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-5**

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

Subject Item: GP 001 Reciprocating Internal Combustion Engines (RICE)**Associated Items:** EU 001 RICE #1A 2SLB Clark 14 mmBtu/hr

EU 002 RICE #2A 2SLB Clark 14 mmBtu/hr

EU 003 RICE #3A 2SLB Clark 14 mmBtu/hr

EU 004 RICE-Emergency Generator 4SRB 2 mmBtu/hr

EU 006 Turbine Engine #1 lean pre-mix Solar 45 mmBtu/hr

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). The potential to emit for these units, based on allowable fuels and emissions factors is 0.0034 lb/MMBtu for EU 006 and 0.000588 lb/MMBtu for all other units in GP 001.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Fuel Type: Limited to pipeline natural gas meeting the definition in 40 CFR Section 60.331(u).	Minn. R. 7007.0800, subp. 2
At the time of permit issuance, EUs 001, 002, 003, and 004 are considered existing affected sources under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR Section 63.6590(a)(1)(i) and (ii). However, these units meet the criteria in 40 CFR Section 63.6590(b)(3), so no limits, recordkeeping, or notifications apply to these units.	40 CFR Section 63.6590(a)(1)(i), (1)(ii), and (b)(3); Minn. R. 7011.8150
Refer to subject Item EU 004 and EU 006 for additional requirements that apply to EU 004 and EU 006.	hdr

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

Subject Item: EU 004 RICE-Emergency Generator 4SRB 2 mmBtu/hr**Associated Items:** GP 001 Reciprocating Internal Combustion Engines (RICE)

SV 004 Reciprocating Engine Emergency Generator

What to do	Why to do it
Operating Hours: less than or equal to 720 hours/year using 12-month Rolling Sum for EU004 when EU001, EU002, EU003 or EU006 are also in operation. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Hours of Operation Calculation: By the end of each calendar month, the Permittee shall: 1). calculate and record the EU 004 operating hours for the previous calendar month, for all periods when EU 001, EU 002, EU 003, or EU 006 were also operating; and 2). calculate and record the 12-month rolling sum operating hours for EU 004 for the previous 12 months, for all periods when EU 001, EU 002, EU 003, or EU 006 were also operating, by summing the monthly hours data for the previous 12 months.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

Subject Item: EU 005 Water Jacket Heater**Associated Items:** SV 005 Water Jacket

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input . The potential to emit for this unit, based on allowable fuels and emissions factors, is 0.00745 lb/MMBtu.	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
Operating Hours: less than or equal to 2,150 hours/year using 12-month Rolling Sum for EU005 when EU001, EU002, EU003 or EU006 are also in operation. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Hours of Operation Calculation: By the end of each calendar month, the Permittee shall: 1). calculate and record the EU 005 operating hours for the previous calendar month, for all periods when EU 001, EU 002, EU 003, or EU 006 were also operating; and 2). calculate and record the 12-month rolling sum operating hours for EU 005 for the previous 12 months, for all periods when EU 001, EU 002, EU 003, or EU 006 were also operating, by summing the monthly hours data for the previous 12 months.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Fuel Type Restriction: Natural Gas Only.	Minn. R. 7007.0800, subp. 2

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

Subject Item: EU 006 Turbine Engine #1 lean pre-mix Solar 45 mmBtu/hr**Associated Items:** CE 001 Other

GP 001 Reciprocating Internal Combustion Engines (RICE)

SV 006 Turbine #1

What to do	Why to do it
<p>Gas Turbine Replacement and Reconstruction: The gas turbine is composed of four main components: an axial compressor, combustor, high pressure turbine (provides mechanical power to drive the axial compressor), and the power turbine (converts thermal to mechanical energy to drive the pipeline compressor). The axial compressor, combustor and high pressure turbine are also known as a gas generator.</p> <p>The Permittee is authorized to replace any or all of the four components for maintenance purposes at manufacturer-specified time intervals as specified later in this permit. Replacement of components meeting the definition of "reconstruction" as defined at 40 CFR Section 60.15, triggers requirements of 40 CFR pt. 60, subp. KKKK for reconstructed facilities. This permit includes the 40 CFR pt. 60, subp. KKKK requirements for reconstructed affected facilities.</p>	Minn. R. 7007.0800, subp. 2
<p>Gas Turbine Replacement and Reconstruction (continued from above): In addition, replacement of components meeting the definition of "reconstruction" as defined at 40 CFR Section 63.2, may trigger requirements of 40 CFR pt. 63, subp. YYYY for reconstructed affected sources.</p> <p>If 40 CFR pt. 60, subp. KKKK (subp. KKKK) requirements are triggered due to reconstruction, the Permittee is no longer subject to 40 CFR pt. 60, subp. GG (subp. GG), and shall meet the subp. KKKK requirements in this subject item.</p> <p>Requirements specific to subp. GG are listed under headings containing the phrase "NO RECONSTRUCTION". Requirements specific to subp. KKKK are listed under headings containing the phrase "RECONSTRUCTION".</p> <p>Requirements listed under headers that are silent regarding reconstruction, apply regardless if there is reconstruction.</p>	Minn. R. 7007.0800, subp. 2 CONTINUED
OPERATING LIMITS	hdr
No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050
MONITORING AND RECORDKEEPING	hdr
The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b); Minn. R. 7019.0100, subp. 1
The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR pt. 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as specified in 40 CFR Section 60.7(f)(1)-(3).	40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
EMISSION LIMITS - NO RECONSTRUCTION	hdr
Sulfur Dioxide: less than or equal to 0.015 percent by volume at 15 percent oxygen and on a dry basis, or,	40 CFR Section 60.333; Minn. R. 7011.2350
Sulfur content of fuel: less than or equal to 0.8 percent by weight.	
MONITORING - NO RECONSTRUCTION	hdr
<p>Fuel Monitoring: The Permittee shall follow the applicable fuel sulfur content monitoring requirements in 40 CFR Section 60.334(h) and shall monitor at the frequency specified in 40 CFR Section 60.334(i).</p> <p>40 CFR Section 60.334(h)(3) allows the Permittee to not monitor total sulfur content of gaseous fuel if the fuel is shown to meet the definition of natural gas as defined in 40 CFR Section 60.331(u).</p>	40 CFR Section 60.334(h) and (i); Minn. R. 7011.2350

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

Excess Emissions Reporting: The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR Section 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports under 60.7(c), periods of excess emissions and monitor downtime are as defined in 40 CFR Section 60.334(j)(1) through (5).	40 CFR Section 60.334(j); Minn. R. 7011.2350
TURBINE COMPONENT REPLACEMENT PROVISIONS	hdr
<p>EU 006 Turbine Component Replacement Authorization: The Permittee may make the replacements specified below without the need for a permit amendment if there is no increase in the hourly emissions rate, no new applicable requirements are triggered, and the Permittee continues to comply with all existing applicable permit conditions.</p> <p>The Permittee is allowed to replace any of the four main gas turbine components (defined earlier in this permit) with similar components as needed. The Permittee may also replace the entire gas generator (axial compressor, combustor, and high pressure turbine) with a gas generator of the same model and ISO-rated horsepower. If replacement of components qualifies EU 006 as a reconstructed facility for purposes of subp. KKKK, the Permittee shall follow the applicable subp. KKKK requirements in this subject item instead of the subp. GG requirements.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
<p>EU 006 Turbine Component Replacement Authorization (continued): If replacement of components qualifies EU 006 as a reconstructed facility for purposes of subp. KKKK, the Permittee shall follow the applicable subp. KKKK requirements in this subject item instead of the subp. GG requirements.</p> <p>If replacement of components qualifies EU 006 as a reconstructed stationary turbine as defined in 40 CFR pt. 63, subp. YYYY, then the Permittee shall comply with that subpart and apply for the appropriate permit amendment to incorporate the standard into the permit, if applicable.</p> <p>The Permittee is not authorized to install an additional gas turbine, is not authorized to completely replace the entire stationary gas turbine as defined at 40 CFR Section 60.4420, is not permitted to operate more than one turbine at the facility, and is not authorized to increase the emission rate (lb/hr, tpy, lb/hp-hr, lb/MMBtu, etc.) of any pollutant with this authorization.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 CONTINUED
<p>EU 006 Turbine Component Replacement Authorization (continued): The gas turbine will continue to be designated as EU 006 regardless if these components have been replaced, and the gas turbine shall continue to be subject to all applicable requirements listed under subject item EU 006.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000 CONTINUED
<p>Turbine Component Replacement Recordkeeping: The Permittee shall record the date and nature of each component replacement no later than 5 business days after completion of each replacement.</p> <p>The Permittee shall also record the total cost of the component replacement compared to the cost of an entirely new stationary gas turbine (as defined at 40 CFR Section 60.4420). This record shall be made at least 30 days before a NOx test is conducted on the gas turbine (as a result of the component replacement), but no later than 180 days after each component replacement.</p>	Minn. R. 7007.0800, subps. 2, 4, and 5
EMISSION LIMITS -- RECONSTRUCTION	hdr
Nitrogen Oxides: less than or equal to 42.0 parts per million at 15 percent oxygen and on a dry basis or 2.0 lb/MWh. The potential to emit from this unit is 6.75 lb/hr based on allowable fuels, unit capacity, and EPA emissions factors (vs. roughly 9.93 lb/hr, as allowed by this limit).	40 CFR Section 60.4320(a) and 40 CFR pt. 60, subp. KKKK, Table 1
Nitrogen Oxides: less than or equal to 150.0 parts per million at 15 percent O2 or 1100 ng/J of useful output (8.70 lb/MWh) when the turbine is operating at less than 75 percent of peak load or operating at temperatures less than 0 degrees F (ambient).	40 CFR Section 60.4320(a) and 40 CFR pt. 60, subp. KKKK, Table 1
Sulfur Dioxide: less than or equal to 0.90 lbs/megawatt-hour gross output or the Permittee shall not burn any fuel in EU 006 which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. The potential to emit from this unit based on allowable fuels, capacity, and EPA emissions factors is 0.0034 lb/MMBtu.	40 CFR Section 60.4330(a)
COMPLIANCE REQUIREMENTS - RECONSTRUCTION	hdr
The Permittee must operate and maintain EU 006, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction.	40 CFR Section 60.4333(a)

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

12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

As an alternative to 40 CFR Section 60.4340(a) performance testing requirements, the Permittee may install, calibrate, maintain and operate one of the following continuous monitoring systems: (1) Continuous emission monitoring as described in Sections 60.4335(b) and 60.4345, or (2) Continuous parameter monitoring as follows: - For any lean premix stationary combustion turbine, the Permittee must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NOx mode. If any of these options are chosen, the Permittee shall comply with all applicable portions of 40 CFR pt. 60, subp. KKKK, and the Permittee shall apply for a permit amendment as applicable to incorporate such requirements.	40 CFR Section 60.4340(b)
Fuel Sulfur Content: The Permittee shall maintain a current valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying the maximum total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet.	40 CFR Section 60.4365(a)
PERFORMANCE TESTING - RECONSTRUCTION	hdr
The Permittee shall perform annual performance tests in accordance with 40 CFR Section 60.4400 to demonstrate continuous compliance. If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit in 40 CFR 60.4320(a) for the turbine, the Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, the Permittee must resume annual performance tests.	40 CFR Section 60.4340(a)
Initial Performance Test: due 180 days after Initial Startup and reconstruction of EU 006, for NOx in accordance with 40 CFR Sections 60.8 and 60.4400.	40 CFR Sections 60.8(a) and 60.4400; Minn. R. 7017.2020, subp. 1
Annual Performance Test: due 425 days after Initial Performance Test (for NOx) or most recent performance test of EU 006, as required in 40 CFR Section 60.8 and in accordance with 40 CFR Section 60.4400. The Permittee shall conduct testing on an annual basis (no more than 14 calendar months following the previous performance test).	40 CFR Sections 60.8(a) and 60.4400; Minn. R. 7017.2020, subp. 1
NOx Performance Test Report: In addition to the other notifications and submittals required by Minn. R. ch. 7017, the Permittee shall submit a written report of the results of each NOx performance test before the close of business on the 60th day following completion of the performance test.	40 CFR Section 60.4375(b)
NOTIFICATIONS - RECONSTRUCTION	hdr
Notification of the Date Reconstruction Began: due 30 days after start of Reconstruction. Submit the name and number of each unit and the date construction of each unit began.	40 CFR Section 60.7(a)(1); Minn. R. 7019.0100, subp. 1
Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup of the Reconstructed EU 006.	40 CFR Section 60.7(a)(3); Minn. R. 7019.0100, subp. 1
Notification of Proposed Replacement of Components: If the Permittee proposes to replace components of EU 006, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable unit, the Permittee shall notify the MPCA of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information specified in 40 CFR Section 60.15(d)(1) through (7).	40 CFR Section 60.15(d); Minn. R. 7019.0100, subp. 1

TABLE B: SUBMITTALS

B-1 12/24/08

Facility Name: Viking Gas Transmission - Cushing
Permit Number: 15300004 - 005

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: Viking Gas Transmission - Cushing
Permit Number: 15300004 - 005

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** 12/24/08

Facility Name: Viking Gas Transmission - Cushing

Permit Number: 15300004 - 005

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX I
 INSIGNIFICANT ACTIVITIES REQUIRED TO BE LISTED
 Facility Name: Viking Gas Transmission - Cushing
 Permit Number: 15300004-005

INSIGNIFICANT ACTIVITIES REQUIRED TO BE LISTED

Insignificant Activity Citation	Insignificant Activity	Applicable Minn. Standard
Minn. R. 7007.1300, subp. 3(A)	Fuel use: space heater fueled by kerosene, natural gas, or propane <i>The Permittee has space heaters with a total capacity of .874 MMBtu/hr.</i>	Minn. R. 7011.0510 (PM and opacity)
Minn. R. 7008.4100	Total facility usage of VOC is less than 200 gallons or 2,000 pounds in each calendar year period calculated according to the method in Minn. R. 7008.4100, subp. 4.	Minn. R. 7011.0715 (PM and opacity) Recordkeeping and calculations in Minn. R. 7008.4100, subps. 3 & 4
Minn. R. 7007.1300, subp. 3(H)(3)	brazing, soldering, or welding equipment <i>The Permittee has welders (1) and acetylene torches (1).</i>	Minn. R. 7011.0715 (PM and opacity)
Minn. R. 7007.1300, subp. 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>Fugitive emissions of VOC from facility valves, relief valves, open-ended lines, and compressor seals.</i>	Minn. R. 7011.0715 (PM and opacity)
Minn. R. 7007.1300, subp. 4	Individual emissions units with actual emissions of one ton per year or less for particulate matter, particulate matter less than ten microns, nitrogen oxide, sulfur dioxide, and VOCs as well as HAPs less than the thresholds listed in subp. 5 of Minn. R. 7007.1300. <i>One natural gas-fired RICE with capacity of 30 hp.</i>	Minn. R. 7011.2300 (opacity, SO ₂ , and heat input)

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 15300004-005

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1 Applicant and Stationary Source Location

Owner Address	Operator Address	Stationary Source/Address (SIC Code: 4922)
Oneok Partners, L.P. PO Box 871 Tulsa, OK 74102	Viking Gas Transmission Company 3140 Neil Armstrong Blvd. #208 Eagan, MN 55121	31888 400 th St Cushing, MN Morrison County
Contact: Kyle Jantzen, Phone: 918/588-7620		

1.2 Description of the Permit Action

This facility is located on a natural gas transmission pipeline with compressor stations located in Minnesota from north to south, at Humboldt, Angus, Ada, Frazee, Cushing, and Milaca.

The Cushing facility is an existing natural gas compressor station consisting of three spark ignition 2-stroke lean burn reciprocating internal combustion compressor engines, one water jacket heater, one spark ignition 4-stroke rich burn reciprocating internal combustion engine emergency generator, and one lean pre-mix combustion turbine compressor engine. All units combust only pipeline natural gas obtained from the pipeline. The four compressors pressurize the natural gas in the pipeline causing it to flow to the next compressor station. The water jacket heater provides heat when the compressor engines are not operating. The facility is an existing major source under New Source Review (NSR).

1.3 Description of any Changes Allowed with this Permit Issuance

The permit carries forward authorization to replace components of the turbine (i.e. the compressor, gas generator, and power turbine) with similar components. The authorization does not extend to replacement that would increase the hourly emission rate, trigger new applicable requirements, or result in noncompliance with existing permit conditions.

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

Permit Number and Issuance Date	Action Authorized
15300004-005 May 23, 2007	Major permit amendment changed the sulfur content monitoring requirements for compressor turbine engine emission unit 006 (EU 006) based on 2004 revisions to 40 CFR pt. 60, subp. GG.

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	Pb tpy	Formaldehyde tpy	Total HAPs tpy
Total Facility Limited Potential Emissions	8.39	8.39	0.801	615	132	29.0	0	10.3	14.8
Total Facility Actual Emissions (2007)	4.30	4.30	0.19	269	33.1	10.1	0	NR	NR

Table 2. Facility Classification

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

1.6 Changes to Permit

The following types of changes have been made since PER 005:

- updated to reflect current MPCA templates and standard citation formatting;
- completed requirements have been deleted;
- revised the hours of operating limits and recordkeeping from straight calendar-year to 12-month rolling sums;
- many requirements have been reordered to help with clarity;
- the requirements at EU 006 for 40 CFR pt. 60, subp. GG and KKKK have been updated to reflect MPCA's current standard language for these rules; and
- the previous flexibility to replace reciprocating engines with temporary units has been removed – the language did not ensure that the changes were not significant modifications under NSR.

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under the New Source Review (NSR) permitting program, but this permitting action does not trigger any NSR permitting requirements.

Part 70 Permit Program

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

Environmental Review

This permitting action does not require environmental review.

Compliance Assurance Monitoring (CAM)

The Facility currently has no units subject to CAM (40 CFR pt. 64). None of the emission units have add-on control equipment.

NAAQS

For EU 004 and EU 005, operating hours limits are necessary to ensure that the Cushing facility does not cause or contribute to a violation of the annual NO_x national ambient air quality standard. These limits were incorporated into the original title V permit by a major amendment in 1999, based on the results of NO_x modeling required by Air Emission Permit No. 15300004-001.

New Source Performance Standards (NSPS)

EU 006 is subject to 40 CFR pt. 60 subp. GG for gas turbines. If the turbine is changed such that it is reconstructed, 40 CFR pt. 60, subp. KKKK would apply.

All of the reciprocating engines at the facility are considered existing facilities under 40 CFR pt. 60, subp. JJJJ; therefore, they are not subject to this standard.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility as permitted is a major source of HAP. The Permittee has stated that no NESHAPs apply at this time. Two standards are discussed further below.

The facility has four existing spark ignition reciprocating internal combustion engines, or RICE (EUs 001, 002, 003, and 004). 40 CFR pt. 63, subp. ZZZZ, regulates RICE at both major HAP sources as well as area sources. These engines are considered affected facilities under this rule; however, none of the requirements from the standard apply to these engines because they all are covered by the “Stationary RICE subject to limited requirements” in 40 CFR § 63.6590(b)(3). One is a 4-stroke rich burn with a capacity of less than 500 brake HP (EU 004) and three are 2-stroke lean burn engines, all burn natural gas.

There is a NESHAP that applies to stationary combustion turbines at major HAP sources; however, existing stationary combustion turbines are not subject to the standard (as specified in 40 CFR § 63.6090(b)(4)). If the turbine is reconstructed, the unit will be subject to this standard.

Minnesota State Rules

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

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

Table 3. Regulatory Overview of Facility

*Level	Applicable Regulations	Comments:
GP 001	Minn. R. 7007.0800, subp. 2 Minn. R 7011.2300 40 CFR pt. 63, subp. ZZZZ	Fuel restricted to pipeline natural gas Standards of performance for stationary internal combustion engines At described above, four units in this group are considered existing RICE at an area source under this rule. No requirements from the rule apply; however, since it is an applicable requirement, it is listed in the permit.
EU 004	40 CFR pt. 50; Minn. Stat. § 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	Operating hours limit to show modeled compliance with NO _x NAAQS from 1999 permit action.
EU 005	40 CFR pt. 50; Minn. Stat. § 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L &	Operating hours limit to show modeled compliance with NO _x NAAQS from 1999 permit action.

*Level	Applicable Regulations	Comments:
	7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080 Minn. R. 7011.0510 Minn. R. 7007.0800, subp. 2	Standards of performance for existing indirect heating equipment Fuel limited to natural gas only.
EU 006	Title I Condition: To avoid classification as major modification under 40 CFR § 52.21 & Minn. R. 7007.3000 40 CFR pt. 60, subp. GG; Minn. R. 7011.2350 40 CFR pt. 60, subp. KKKK	Provision for replacement of combustion turbine components. The restrictions of the authorization allow the change to avoid being a major modification under NSR. The potential to emit of this unit is less than the major modification threshold, so the NSR emissions increase analysis for component replacement will be less than the major modification thresholds. It is possible that component replacement would be considered reconstruction and the unit would then be subject to 40 CFR pt. 63, subp. YYYYY as a reconstructed unit at a major HAP source. The permit states that the Permittee must apply for a permit amendment to incorporate the NESHAP into the permit if this occurs. Minnesota rules specifically allow final NESHAPs to be incorporated into the permit through an administrative amendment, so this is a fairly streamlined process. In addition, as of permit issuance, the limits that would apply to the turbine are <i>stayed</i> under the rules (see 40 CFR § 63.6095(d)) until EPA takes final action and revises the rule. This may change at some point, so it is better to leave any specific requirements out of the rule and just require the facility to get the appropriate amendment. National emission standards of performance for stationary gas turbines. The unit is currently exempt from the NO _x limit in 40 CFR § 60.332 because the original date of manufacture is before October 3, 1982. Permittee uses the monitoring option based on using pipeline natural gas with appropriate documentation. Standards of Performance for Reconstructed Natural Gas Combustion Turbines. Because the permit allows component replacement of EU 006, it is possible that the replacements could reach the point of reconstruction under NSPS. If this is the case, then the unit would be subject to 40 CFR pt. 60, subp. KKKK. NSPS provisions cannot currently be incorporated into a permit via an administrative amendment under Minnesota rules, so these are included in this permit.

* Where to find the requirements in the permit. EU, emissions unit, GP, group, etc.

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment 1 to this TSD contains detailed spreadsheets and supporting information prepared by the MPCA based on information in the permit application.

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

Level	Requirement (basis)	Additional Monitoring	Discussion
GP 001	SO ₂ ≤ 0.5 lb/MMBtu Opacity ≤ 20% (Minn. R. 7011.2300)	Fuel recordkeeping	Fuel is restricted to natural gas and the permit requires that records demonstrating that the fuel meets the definition of 40 CFR § 60.331(u). The PTE of these units based on emissions factors is 0.000588 lb/MMBtu for all but EU 006. EU 006 is 0.0034 lb/MMBtu, all significantly under the rule limit.
EU 004	Hours ≤ 720 hr/yr, when operating with EU 001, 002, 003, and 006 (NAAQS)	Monthly calculation of hours of operation	Monthly records of hours of operation and 12-month rolling sum calculations are reasonable for this unit.
EU 005	PM ≤ 0.6 lb/MMBtu Opacity ≤ 20%, with exceptions (Minn. R. 7011.0510) Hours ≤ 2150 hr/yr, when operating with EU 001, 002, 003, and 006 (NAAQS)	Fuel recordkeeping Monthly calculation of hours of operation	Fuel is restricted to natural gas. The PTE of this unit based on emissions factors for natural gas is 0.00745 lb/MMBtu. Monthly records of hours of operation and 12-month rolling sum calculations are reasonable for this unit.
EU 006	SO ₂ ≤ 0.015% by volume or 0.8% by wt S (40 CFR pt. 60, subp. GG)	None	The NSPS is assumed to have adequate monitoring. Historical fuel sampling shows a maximum of 0.00034% total sulfur by weight, significantly under the limit of 0.8%.

Level	Requirement (basis)	Additional Monitoring	Discussion
	NO _x ≤ 42 ppm, or 150 ppm, depending on operating conditions, etc. SO ₂ ≤ 0.06 lb/MMBtu, etc. (40 CFR pt. 60, subp. KKKK)	None	The NSPS is assumed to have adequate monitoring. The NO _x PTE, based on allowable fuels, is 0.15 lb/MMBtu vs. 0.22 lb/MMBtu (rule limit converted from ppm – see spreadsheet in Attachment 1). The SO ₂ PTE is 0.0034 lb/MMBtu compared to the limit of 0.06 lb/MMBtu (see spreadsheet in Attachment 1).

3.3 Insignificant Activities

Viking Gas Transmission - Cushing has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities.

Table 5. Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Fuel use: space heaters fueled by, kerosene, natural gas, or propane	PM ≤ 0.6 or 0.4 lb/MMBtu, depending on year constructed Opacity ≤ 20% with exceptions (Minn. R. 7011.0510)	For this unit, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these types of units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Brazing, soldering or welding equipment	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Individual units with potential or actual emissions less than the various thresholds in the rule	PM, variable depending on airflow Opacity ≤ 20% (with exceptions) (Minn. R. 7011.0715)	These are equipment leaks of VOC, they are not reasonably expected to emit PM or generate opacity.
Total Facility VOC Usage less than 200 gallons or 2000 pounds in each calendar year	PM, variable depending on airflow Opacity ≤ 20% (with exceptions) (Minn. R. 7011.0715)	Once again, this is an activity that only emits VOC, they are not reasonably expected to emit PM or generate opacity.
Emission Units with emissions less than the thresholds listed in the rule	Opacity ≤ 20% SO ₂ ≤ 0.5 lb/MMBtu (with exceptions) (Minn. R. 7011.2300)	The unit burns natural gas so is not expected to generate opacity or significant SO ₂ .

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. GP 001 does include limits that apply separately to each member of the group. This is a generally applicable requirement that does not require stack testing or specific compliance demonstration other than recordkeeping. This shortens the permit by several pages.

3.5 Comments Received

No comments were received during either review period.

Public Notice Period: November 10, 2008 – December 9, 2008

EPA 45-day Review Period: November 10, 2008 – December 26, 2008

4. Conclusion

Based on the information provided by Oneok Partners, L.P., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 15300004-005 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

Peggy Bartz (permit engineer)
Marilyn Wegwart (permit writer assistance)
Dave Crowell (enforcement)
Marshall Cole (peer reviewer)

AQ File No. 366E; DQ 1831

Attachments:

1. PTE Summary and Calculation Spreadsheets
2. Facility Description and CD-01 Forms

ATTACHMENT 1
PTE Summary and Calculation Spreadsheets (paper copy only)

ATTACHMENT 2
Facility Description and CD-01 Forms (paper copy only)