AIR EMISSION PERMIT NO. 08300007- 001

IS ISSUED TO

Williams Pipeline Company

WILLIAMS PIPELINE COMPANY - MARSHALL

Highway 19 West

Marshall, Lyon County, Minnesota 56258

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	June 14, 1996
Major Amendment	March 1, 1996

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 and with all general conditions listed in Minn. R. 7007.0800, subp. 16, which are incorporated by reference. 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: State; Syn Min Part 70

Issue Date: October 20, 1997

Expiration: All Title I Conditions do not expire.

Michael J. Sandusky
Acting Division Manager
Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

TRW:dal

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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	(612)296-6300
Outside Metro Area	1-800-657-3864
TTY	(612)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. Any requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control).

FACILITY DESCRIPTION:

Williams Pipe Line Company (the Permittee) owns and operates a bulk petroleum terminal, pipeline and storage facility in Marshall, Minnesota. This facility provides approximately 200,000 barrels of storage capacity.

On June 4, 1996, the MPCA received a Total Facility Operating permit (TFP) application from the Permittee. A few months earlier on March 1, 1996, the MPCA received an application for a major permit amendment from the Permittee for the installation of a new loading rack and vapor controller. This amendment was processed and issued on August 20, 1996, as an installation and operation permit. The content of the amendment will be incorporated into this Total Facility permit. The new loading rack began operation on January 9, 1997.

The main emission sources at the plant are the loading rack/vapor collection and control system, the dual fuel engine running the mainline pump, the product storage tanks, and fugitive VOC emissions. Operation of the flare and vapor collection system allows the facility to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR pt. 63.

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 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
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
Shutdowns: Notify the Commissioner at least 24 hours in advance of shutdown of any process or control equipment if the shutdown would cause an increase in the emission of air contaminants. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over.	Minn. R. 7019.1000, subp. 1
Breakdowns: Notify the Commissioner immediately of a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emission of air contaminants or as required by Minn. R. 7019.1000 as amended after permit issuance. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Oral Notification of Deviations Endangering Human Health or the Environment: Within 24 hours of discovery, orally notify the Commissioner of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7007.0800, subp. 6(A)
Discovery of Deviations Endangering Human Health or the Environment Report (written): within two working days after discovery of deviation, submit a written description of any deviation endangering human health or the environment to the Commissioner. Include the following information in this written description: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7007.0800, subp. 6(A)
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)
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 you need a permit amendment, submit 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

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.	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

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **GP 001 Aboveground Fuel Tanks**

Associated Items: TK 001 Ethanol 64175

TK 002 Gasoline 8006619

TK 003 Distillate 68476346

TK 004 Gasoline 8006619

TK 005 Distillate 68476346

TK 006 Gasoline 8006619

TK 007 Distillate 68476346

TK 008 Distillate 68476346

TK 009 Distillate 68476346

TK 010 Distillate 68476346

TK 011 Gasoline 8006619

What to do	Why to do it
Operate and maintain the fuel tanks as suggested by the manufacturer. Include this information in the operation and maintenance plan for the facility.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **SV 001**

Associated Items: EU 001 Loading Rack w/ Vapor Combustor Control

What to do	Why to do it
Performance Test: due before end of each 60 months following Permit Issuance for Total Organic Compounds	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **SV 002**

Associated Items: EU 002 Dual-Fuel Engine #1

What to do	Why to do it
Opacity: greater than or equal to 20 percent opacity for no more than 10 consecutive seconds once operating temperatures are obtained.	Minn. R. 7011.2300, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **EU 001 Loading Rack w/ Vapor Combustor Control**

Associated Items: CE 001 Flaring

SV 001

What to do	Why to do it
Total Organic Compounds: less than or equal to 35 milligrams/liter of product loaded and not to exceed 12.25 lb/hr.	40 CFR Section 60.502(b); Minn R. 7011.1550
Operate the vapor collection/control system and the UV pilot light sensor at all times the loading rack is operated.	Minn. R. 7007.0800, subp. 2
Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline trucks using the following procedures. The Permittee shall: 1. Obtain the vapor tightness documentation described in 40 CFR Section 60.505(b) for each gasoline tank truck which is to be loaded at the facility. 2. Require the tank identification number to be recorded as each gasoline tank truck is loaded at the facility. 3. Cross-check each tank identification number with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded. 4. Notify the owner or operator of each nonvapor-tight gasoline tank truck loaded at the facility within 3 weeks after the loading has occurred. 5. Take steps assuring that the nonvapor-tight gasoline tank truck will not be reloaded at the facility until vapor tightness documentation for that tank is obtained. 6. Alternate procedures may be used upon application to, and approval by, the Administrator.	40 CFR Section 60.502(e); Minn R. 7011.1550
The Permittee shall act to assure that loadings of gasoline tank trucks at the facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.	40 CFR Section 60.502(f); Minn R. 7011.1550
The Permittee shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. This includes training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks.	40 CFR Section 60.502(g); Minn R. 7011.1550
The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded during the performance test when measured by the procedures specified in 40 CFR Section 60.503(d) .	40 CFR Section 60.502(h); Minn R. 7011.1550
No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water.)	40 CFR Section 60.502(i); Minn R. 7011.1550
Inspect: each calendar month the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable.	40 CFR Section 60.502(j); Minn R. 7011.1550
Repair: Each detection of a leak shall be recorded and the source of the leak repaired within 15 days after each inspection.	40 CFR Section 60.502(j); Minn R. 7011.1550
The tank truck vapor tightness documentation shall be kept on file at the terminal in a permanent form available for inspection.	40 CFR Section 60.505(a); Minn R. 7011.1550
The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include items (1) through (8) of 40 CFR Section 60.505(b).	40 CFR Section 60.505(b); Minn R. 7011.1550
A record of each monthly leak inspection shall be kept on file at the terminal for at least 5 years and shall include, at a minimum: 1. Date of inspection 2. Findings (no leaks, or nature and severity of leaks) 3. Leak determination method 4. Corrective action (date each leak repaired, reasons for repair interval >15 days) 5. Inspector name and signature	40 CFR Section 60.505(c); Minn R. 7011.1550
The Permittee shall keep documentation of all notifications required under 40 CFR Section 60.502(e)(4) on file at the terminal for at least 2 years.	40 CFR Section 60.505(d); Minn R. 7011.1550
The Permittee shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 5 years.	40 CFR Section 60.505(f); Minn R. 7011.1550

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

A pressure measurement device capable of measuring up to 500 mm of water gauge pressure with +/- 2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck during the performance test.	40 CFR Section 60.503 (d)(1); Minn R. 7011.1550

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **EU 002 Dual-Fuel Engine #1**

Associated Items: SV 002

What to do	Why to do it
Operating Hours: less than or equal to 8000 hours/year	Title 1 Condition: limit taken to avoid classification as a major source under 40 CFR Section 52.21 and to avoid major source classification under 40 CFR Section 70.2
Recordkeeping: operating hours shall be measured by an hour meter at the engine and recorded monthly. The number of operating hours per year shall be calculated monthly based on a 12 month rolling sum. Existing records shall be used in the calculation of the rolling sum for the first 11 months of the permit.	Title 1 Condition: limit taken to avoid classification as a major source under 40 CFR Section 52.21 and to avoid major source classification under 40 CFR Section 70.2

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **CE 001 Flaring**

Associated Items: EU 001 Loading Rack w/ Vapor Combustor Control

What to do	Why to do it
Flares shall be operated at all times when emissions may be vented to them.	Title 1 Condition: limit taken to avoid classification as a major source under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2; and to avoid major source classification under 40 CFR Section 63.2
Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	Title 1 Condition: limit taken to avoid classification as a major source under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2; and to avoid major source classification under 40 CFR Section 63.2

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **TK 001 Ethanol 64175**

Associated Items: GP 001 Aboveground Fuel Tanks

What to do	Why to do it
Equipped as described in 40 CFR Section 60.112b(a)(1).	40 CFR Section 60.112b(a)(1)
Inspection: visually inspect the floating roof, primary seal, and secondary seal prior to the initial filling with product and repair/correct any problems as specified in 40 CFR Section 60.113b(a)(1).	40 CFR Section 60.113b(a)(1)
Inspection: inspect the floating roof, primary seal or the secondary seal at least once every 12 months and repair/correct any problems as specified in 40 CFR Section 60.113(a)(2).	40 CFR Section 60.113b(a)(2)
Inspection: Inspect the floating roof, primary seal and secondary seal gaskets, slotted membranes and sleeve seals (if any); each time the tank is emptied and degassed and repair/correct any problems. These inspections shall take place at intervals no greater than 10 years.	40 CFR Section 60.113b(a)(4)
At all times the tank is in operation, operate the floating roof and maintain the seals in good condition. Keep operating and maintenance records on the floating roof.	Minn. R. 7007.0800, subp. 14
Change/repair seals and fittings as needed. Align components to ensure proper seal gaps. Keep records of maintenance, calibration, and daily readings.	Minn. R. 7007.0800, subp. 14
Recordkeeping: keep records on site of each inspection including the date of the inspection and observed conditions of the control equipment.	40 CFR Section 60.115b(a)(2)
Notification: notify agency at least 30 days prior to filling or refilling the tank after emptying and degassing it.	40 CFR Section 60.113b(a)(5)
Certification Report (for floating roof): submit with notification of initial startup.	40 CFR Section 60.115b(a)(1)
Monitoring: monitoring of the liquid stored in the tank and related on-site recordkeeping and reporting shall be codnucted as specified in 40 CFR Section 60.116b(c) and 40 CFR Section 60.116b(d).	40 CFR Section 60.116b(c); 40 CFR Section 60.116b(d)
Required Equipment: Equip the storage tank with a floating roof, a vapor recovery system or their equivalents, as necessary depending on the product stored in the tank.	Minn. R. 7011.1505, subp. 3(C)
Recordkeeping: Maintain the records described in Minn. R. 7011.1510, subp. 1(A) and Minn. R. 7011.1510, subp. 1(B) on site.	Minn. R. 7007.0800, subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: **TK 011 Gasoline 8006619**

Associated Items: GP 001 Aboveground Fuel Tanks

What to do	Why to do it
Recordkeeping: records shall be kept on site showing the dimensions and the capacity of the storage tank.	40 CFR Section 60.110b(b); 40 CFR Section 60.116b(b);
The tank must be equipped with a permanent submerged fill pipe or comply with Minn. R. 7011.1505, subp.3(C).	Minn. R. 7011.1505, subp.3 (B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Subject Item: FS 001 Valves, Pump Seals, Flanges, and Connectors

What to do	Why to do it
Operate and maintain these items as suggested by the manufacturer. Include this information in the operation and maintenance plan for the facility.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 4

TABLE B: SUBMITTALS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 001

Table B lists the submittals you must send to the Commissioner. Table B is divided into two sections, for source-specific submittal requirements and for submittals required of all permittees. Source-specific submittals are further organized as either one-time only or recurrent requirements. You may also be subject to additional reporting requirements contained in the compliance schedule located in Table C of this permit. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Submittals which must be provided on standardized forms approved by the Commissioner are noted in Tables B and C.

Send any application for a permit or permit amendment to: Permit Information Coordinator, Permit Section, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4914. Also send the Permit Information Coordinator notices of: accumulated insignificant activities, installation of control equipment, replacement of an emissions unit, and changes that contravene a permit term.

Send all other submittals to: Compliance Tracking Coordinator, Compliance Determination Unit, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 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
Performance Test Notification (written)	due 30 days before Performance Test	SV001
Performance Test Plan	due 30 days before Performance Test	SV001
Performance Test Report - Microfiche Copy	due 105 days after Performance Test for total organic compounds.	SV001
Performance Test Report	due 45 days after Performance Test for total organic compounds.	SV001
Report	due 30 days after Inspect ion that identifies defects. Submit a report to the Administrator identifying the storage vessel, the defects identified, and a list of the repairs made.	TK001

TABLE B: RECURRENT SUBMITTALS

10/20/97

Facility Name: Williams Pipe Line Co - Marshall

Permit Number: 08300007 - 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 . To be submitted on a form approved by the Commissioner. The report covers all deviations experienced during the previous 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

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 08300007-001
For
WILLIAMS PIPE LINE COMPANY
(AQD File No. 1858F)

This Technical Support Document (TSD) is for all the interested parties of the permit and to meet the requirements that have been set forth by the federal regulations and Minnesota Rules (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 preliminary determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 5171)
Williams Pipe Line Company	Williams Pipe Line Company
P.O. Box 3448, MD 35-40	Highway 19 West
Tulsa, Oklahoma 74101	Marshall, Minnesota 56258
	(Lyon County)

1.2. Description of the Permit Action

1.2.1 General Description of Permit Action

Williams Pipe Line Company (the Permittee), owns and operates a bulk petroleum terminal, pipeline and storage facility in Marshall, Minnesota. This facility provides approximately 200,000 barrels of storage capacity.

On June 4, 1996, the MPCA received a Total Facility Operating permit (TFP) application from the Permittee. A few months earlier on March 1, 1996, the MPCA received an application for a major permit amendment from the Permittee for the installation of a new loading rack and vapor controller. This amendment was processed and issued on August 20, 1996, as an installation and operation permit. The content of the amendment will be incorporated into this Total Facility permit. The new loading rack began operation on January 9, 1997.

The main emission sources at the plant are the loading rack/vapor collection and control system, the dual fuel engine running the mainline pump, the product storage tanks, and fugitive emissions.

It should be noted that emission units were renumbered. Tanks do not receive an EU number, only a tank number. Also, the soil treatment activity at the site is now EU 003.

Comments were received from the United States Environmental Protection Agency (USEPA) on this permit while it was on public notice. Changes were made to the permit in response to these comments.

Confidentiality of Information:

The Permittee requested that actual emissions data be kept confidential. In a letter dated February 6, 1997, this identical request was denied for their Mankato facility because the Clean Air Act requires that actual emission data be kept public. Based on this precedent, the actual emissions data from this facility will also be held as public information.

1.2.2 Applicability of Federal Regulations

Part 52 New Source Review (NSR), Prevention of Significant Deterioration (PSD)

does not apply - The major source threshold for this facility, including fugitive emissions, is 100 tons per year (TPY). The terminal will be considered a nonmajor source for PSD review due to the operation of pollution control equipment, i.e. a flare.

Part 60 New Source Performance Standards (NSPS)

40 CFR pt. 60, Parts K, Ka, Kb- *does not apply except for TK 001 and TK 011*
All product tanks were installed in 1946, except for TK 001 (which was modified in 1996), and TK 011 (which was installed in 1989). NSPS apply to tanks installed or modified after June 11, 1973. Subpart Kb applies to both TK 001 and TK 011.

40 CFR pt. 60, Part XX - Bulk Gasoline Terminals - *does apply*
40 CFR § 60.500 Applicability
(a)...all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank trucks and
(b) ...construction or modification of which is commenced after December 17, 1980.

Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)
The definition of a major source for NESHAP is any stationary source which emits greater than 10 TPY of any single Hazardous Air Pollutant (HAP) or greater than 25 tpy of any combination of HAPs.

Subp. R - Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) - *does not apply*

40 CFR § 63.420 Applicability.
(a) Exception for bulk gasoline terminals for which...
(a)(2) ...the owner or operator has documented and recorded to the Administrator's satisfaction that the facility is not a major source, or is not located within a contiguous area and under common control of a facility that is a major source, as defined in 40 CFR § 63.2 of subpart A of this part.

The terminal has sent in notification (attached) in accordance with 40 CFR § 63.420 (a)(2) that they are an area source.

Part 70 Operating (Title V) Permit Program

does not apply - The terminal will be considered a nonmajor source under Part 70 and will be issued a state total facility permit.

1.2.3 Applicability of State Regulations

Minn. R. 7011.1550 Bulk Gasoline Terminals - *does apply*
40 CFR pt. 60, Part XX is adopted and incorporated by reference.

Minn. R. 7011.1505, Liquid petroleum and Volatile Organic Liquid Storage Vessels
Subp. 1. PRE-1969 STORAGE VESSELS. There are no standards of performance promulgated in this rule for storage vessels for which construction was commenced prior to July 7, 1969. *All tanks containing these liquids were installed in 1946 except for TK 001 & TK 011.*

Subp. 3. POST-JUNE 11, 1973 STORAGE VESSELS. *applies for TK 001 and TK 002*

1.2.4 Environmental Review

An Environmental Assessment Worksheet (EAW) was not required for this permit action since the facility had actual emissions of less than 100 TPY for all criteria pollutants.

1.3. Emissions of the Facility

Table 1. Facility Classification

	Major	Synthetic Minor	Minor	N/A
Prevention of Significant Deterioration		X		
Non Attainment Area				X
Operating Permit Program		X		

Table 2. Potential to Emit (PTE) Allowed in the Proposed Total Facility Permit

Pollutant	Individual PTE (TPY)					Facility PTE* (TPY)	Major Source** Threshold (TPY)
	Loading Rack w/ vapor control (EU 001)	Tanks (GP 001)	Engine (EU 002)	Fugitive (FS 001)	Soil Redmed (EU 003)		
PM			1.7			**1.7**	**100**
PM_{10}			1.4			**1.4**	**100**
SO_2			0.47			**0.5**	**100**
NO_x	6.1		87.5			**93.6**	**100**
VOC	53.4	23.5	6.5	0.32	0.18	**83.7**	**100**
CO	15.3		22.3			**37.6**	**100**
***HAP (total)	2.6	1.1	0.04	0.02	0.01	**3.8**	**25**
Benzene	0.48	0.21	0.02	0.003	0.002	**0.7**	**10**
Ethyl Benzene	0.05	0.02		0.0003	0.0002	**0.1**	**10**
Hexane	0.85	0.38		0.005	0.003	**1.2**	**10**
Toluene	0.69	0.31	0.008	0.004	0.002	**1.0**	**10**
2,2,4 Trimethyl pentane	0.43	0.19		0.003	0.001	**0.6**	**10**
Xylenes	0.27	0.12	0.005	0.002	0.0009	**0.4**	**10**
Formaldehyde			0.002			**< 0.1**	**10**
Acetaldehyde			0.0007			**< 0.1**	**10**
Acrolein			0.0002			**< 0.1**	**10**

* After permit limitations are considered

** Federal Prevention of Significant Deterioration Regulation, 40 CFR § 52.21; and National Emission Standards for HAP, 40 CFR § 63.2

***Not a sum, see table in section 2.1 (below).

2. Regulatory and/or Statutory Basis of Emission Limit

2.1 Summary of Limits and Conditions Indicated in Part 1 of the Permit

<u>Loading Rack with Vapor Collection and Control</u>

Stack/Vent I.D.: 001 **Emission Unit:** 001 **Control Eq:** 001

Requirement or Condition:

1. Total Organic Compounds: less than or equal to 35 milligrams/liter of product loaded
2. The vapor collection/control system and the pilot light sensor must be operated at all times the loading rack is operated
3. Load product only into vapor-tight tank trucks
4. Operation and maintenance of the loading rack and recordkeeping per regulations (below)

Factual and/or legal basis for above:

1. 40 CFR § 60.502(b); Minn. R. 7011.1550
2. Title I Condition: operation of pollution control equipment allows terminal to avoid classification as a major source under 40 CFR § 52.21
3. 40 CFR § 60.502(e); Minn. R. 7011.1550
4. 40 CFR § 60.502(f) through 40 CFR § 60.50(j); 40 CFR § 60.505(a) through 40 CFR § 60.505(d); 40 CFR § 60.505(f); 40 CFR § 60.503(d)(1); Minn. R. 7011.1550

Comments/Discussion:

The performance test for this unit took place on April 23, 1997. An opacity limit is not required because this unit has a standard of performance promulgated in another rule.

3. The pilot light sensor is connected to the loading rack in such a way that if the sensor detects the absence of a flame, the loading rack is automatically shut down. The operator can manually bypass the system, but would notify the MPCA of the activity as a shutdown/breakdown and as a deviation from a permit condition. The operation and maintenance of this feature is critical to the emission from this facility, because without the operation of the flare as control equipment, this terminal would be a major source for PSD.

Potential Emissions Calculation Discussion

1. Loading losses are the major source of emissions at this facility. Emissions from loading racks can be estimated using the following expression (AP-42, Chapter 5.2, Eqn. 1)

$$L_L = 12.46\ (SPM/T)$$

where: L_L = Loading loss in pounds per 1000 gallons of liquid loaded
S = saturation factor = 0.60 for submerged loading with dedicated normal service, T 5.2-1
P = true vapor pressure of liquid loaded (psia), T. 7.1-2, at temp (T) used below
M = molecular weight of vapors, T. 7.1-2
T = temperature of bulk liquid loaded (°R), T. 7.1-7, use Sioux Falls, SD

Example for RVP 10 Gasoline Loading: L_L = 12.46 (0.60)(3.82)(66)/(45.3 + 460) = 3.73
Apply control efficiency : 3.73 (1 - 0.967) = 0.123 lb/10^3 gal
Total loading losses: 0.123 lb/10^3 gal x 368,000 (10^3) gal/yr = 45,000 lb/yr = 22.6 tons/yr

Spreadsheet is attached which has summary tables for different materials.

2. However, there is an underlying applicable requirement, the NSPS for Bulk Gasoline Terminals that limits Volatile Organic Compound (VOC) emissions to 35 mg/l of VOC per liter of gasoline loaded.

   35 mg/l x 3.79 l/gal x 1 g/1000 mg x 1kg/1000g x 2.20 lb/ kg = 0.00029 lb/gal
   0.00029 lb/gal x 368,000,000 gallons/yr = 107,000 lb/yr = 53.4 tons/yr
   [The Permittee has requested that 53.4 TPY be the PTE for the loading rack. This is also less ambiguous, as there are 5 different materials loaded at the facility and this limit applies to each]

3. Hazardous Air Pollutants
   Gasoline Distribution Industry (Stage 1) - Background Information for Proposed NESHAP
   The vapor profile of normal gasoline is:

Pollutant	**HAP to VOC Ratio (% by wt)**
Hexane	1.6
Benzene	0.9
Toluene	1.3
2,2,4 Trimethylpentane	0.8
Xylenes	0.5
Ethylbenzene	0.1
Total HAPs (not a sum)	4.8

These ratios have been applied to the allowable VOC emissions to determine the allowable HAP emissions.

Dual Fuel Engine (for mainline pump)

Stack/Vent I.D.: 002 **Emission Unit:** 002

Requirement or Condition:

1. Operating hours: less than or equal to 8000 hours per year.
2. Opacity: greater than or equal to 20 percent for no more than 10 consecutive seconds once operating temperatures are obtained.

Factual and/or legal basis for above:

1. Title I Condition: fuel limit taken to avoid classification as a major source under 40 CFR § 52.21
2. Minn. R. 7011.2300, subp. 1

Comments/Calculation Discussion:

1. The operating hours of the pump engine shall be monitored by an hour meter, recorded and calculated monthly based on a 12 month rolling sum. Existing operating records shall be used during the first 11 months of the permit to calculate the rolling sum.

Tank 001 (No. 427) Ethanol
NOTE: all tanks are grouped under GP 001 on form GI-07

Requirement or Condition:

1. Equip the tank as described in 40 CFR § 60.112b(a)(1)
2. Inspect and repair (if necessary) the required tanks components at the requisite time intervals.
3. At all times the tank is in operation, operate the floating roof and maintain the floating floor seals in good condition. Keep operating and maintenance records on the floating roof.
4. Change/repair seals and fittings as needed. Align components to ensure proper seal gaps. Keep records of maintenance, calibration, and daily readings.
5. Reporting: report any inspection finding defects and a list of each repair made.
6. Recordkeeping: keep records on site of each inspection including the date of the inspection and observed conditions of the control equipment.
7. Notification: notify agency at least 30 days prior to filling or refilling the tank.
8. Certification Report (for floating roof): submit with notification of initial startup.
9. Monitoring: monitoring of the liquid stored in the tank and related on-site recordkeeping and reporting
10 The tank shall be equipped with a floating roof, a vapor recovery system or their equivalents, as necessary depending on the product stored in the tank.
11. Recordkeeping: Maintain the records described in Minn. R. 7011.1510, subp. 1(A) and Minn. R. 7011.1510, subp. 1(B)

Factual and/or legal basis for above:

1. 40 CFR § 60.112b(a)(1)
2. 40 CFR § 60.113b(a)(1); 40 CFR § 60.113b(a)(2); 40 CFR § 60.113b(a)(4)
3. Minn. R. 7007.0800, subp. 14
4. Minn. R. 7007.0800, subp. 14
5. 40 CFR § 60.115b(a)(4)
6. 40 CFR § 60.115b(a)(2)
7. 40 CFR § 60.113b(a)(5)
8. 40 CFR § 60.115b(a)(1)
9. 40 CFR § 60.116b(c); 40 CFR § 60.116b(d)
10. Minn. R. 7011.1505, subp. 3(C)(1)
11. Minn. R. 7011.1510, subp. 1

Comments/Calculation Discussion:

Requirements 1-9 were drawn from Air Emission Permit No. 1858F-96-I/O-1.

Tanks 002 - 010

Requirement or Condition:

Operate and maintain the fuel tanks as suggested by the manufacturer. Include this information in the operation and maintenance plan for the facility.

Comments/Calculation Discussion:

These tanks were installed before any standards of performance were promulgated. Emission were calculated using Tanks 2.0, and model inputs were checked for consistency with the permit application.

Tank 011 (Emergency Relief Tank) Gasoline

Requirement or Condition:

The tank shall be equipped with a permanent submerged fill pipe.

Factual and/or legal basis for above:

Minn. R. 7011.1505, subp. 3(B)

Comments/Calculation Discussion:

This requirement was drawn from Air Emission Permit No. 1858F-96-I/O-1

Fugitive VOC Emissions

Fugitive Source: 001

Requirement or Condition:

Operate and maintain the items as suggested by the manufacturer. Include this information in the operation and maintenance plan for the facility.

Comments/Calculation Discussion:

1. Fugitive emissions must be included in the calculation of the facility PTE. See Attachment (Form EC-14) for calculations. Emission factors were taken from API publication No 4588 *Development of Fugitive Emission Factors and Emission Profiles for Petroleum Marketing Terminals*.

Soil Remediation Activity

Stack/Vent I.D.: NA **Emission Unit:** 003

Requirement or Condition:

None

Comments/Calculation Discussion:

1. Soil remediation activities to date at the site have consisted of soil excavation and placement on perforated pipe for treatment in the spring (soil vapor extraction). The potential VOC emissions from this source was estimated in consultation with Mark Gammell of Williams Pipeline, Company. Mr. Gammell supplied Total Hydrocarbons (THC) removal data for a site (see attachment titled, Baumann Farm Site) that he expects will compare well with the Marshall site. For our purposes, THC is conservatively assumed to be approximately equal to VOC. The VOC emissions decrease from the Baumann Farm Site exponentially over time, with a 95 percent decrease in emissions in just nine days. The highest emission rate of 206 lb/day, or 8.6 lb/hr was shown on day one. If this instantaneous emission rate continued for one year this would be 37.6 ton/yr. In actuality this is not true, because the emission rate is reduced to 95 percent of its initial rate in just nine days. Thus the total mass of emissions released over one year must be calculated. The last column of the attachment shows the cumulative mass of THC VOC emitted over time. By taking the mass emitted in pounds and converting to tons (i.e. 353 lb / 2000 lb/ton), it can be seen that the emissions from this source are very small (0.18 ton/year). HAP emission rates can be calculated as shown for EU 001. These can also be seen to be very small (i.e. Total HAPs = 0.048 * 0.18 = 0.01 ton/year).

3. Conclusion

Based on the information provided by Williams Pipeline Company, the MPCA has reasonable assurance that the proposed construction of the emission facility, as described in the Air Emission Permit No. 08300007-001, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Attachments:

1. Facility Emissions Summary (GI-07)
2. Confidentiality Letter
3. NESHAP Notification
4. Summary of Tanks 2.0 Output
5. Soil Remediation Calculations
6. Fugitive Emissions Calculations (EC-14)

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