

STATE OF MISSOURI

PERMIT BOOK



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 012007 - 012 Project Number: 2006-10-131

Parent Company: Magellan Midstream Partners, LP

Parent Company Address: P O Box 22186, MD 27-3, Tulsa, OK 74121

Installation Name: Magellan Pipeline Co - Carthage

Installation Address: 18195 County Road 138, Jasper, MO 64755

Location Information: Jasper County, S26, T30N, R31W

Application for Authority to Construct was made for:

Construction of a new bottom loading truck rack and vapor combustion unit (VCU) to control emissions. The new rack will replace the existing top loading rack. A new 10,000 barrel internal floating roof ethanol storage tank and an ethanol unloading skid for unloading of ethanol by truck to the new tank will also be constructed. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JAN 18 2007

EFFECTIVE DATE

Steven Fisher for JLR

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions: *The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

Magellan Pipeline Co - Carthage
Jasper County, S26, T30N, R31W

1. Magellan Pipeline Co. - Carthage shall control emissions from the truck loading rack using the vapor combustion unit (VCU) as specified in the permit application. The VCU shall be in use at all times whenever gasoline is being loaded at the truck loading rack. The VCU shall be operated and maintained in accordance with the manufacturer's specifications to achieve a volatile organic compound (VOC) emission at the VCU stack of no more than 35 mg VOC per liter of gasoline loaded, as specified in Subpart XX, *Standards of Performance for Bulk Gasoline Terminals* of the New Source Performance Standards (NSPS).
2. Magellan Pipeline Co. - Carthage shall maintain an operating and maintenance log for the VCU which shall include the following:
 - A. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - B. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
3. Magellan Pipeline Co. - Carthage shall comply with all appropriate monitoring, testing, reporting, and record keeping requirements of 40 CFR 60, Subpart XX, *Standards of Performance for Bulk Gasoline Terminals*.
4. Magellan Pipeline Co. - Carthage shall comply with all appropriate monitoring, testing, reporting, and record keeping requirements of 40 CFR 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*
5. Magellan Pipeline Co. - Carthage shall shut down and dismantle the existing loading rack (EP01) once the new loading rack with vapor combustion unit in this permit is constructed.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT
SECTION (5) REVIEW

Project Number: 2006-10-131
Installation ID Number: 097-0079
Permit Number:

Magellan Pipeline Co - Carthage
18195 County Road 138,
Jasper, MO 64755

Complete: 10/30/2006
Reviewed: 12/21/2006

Parent Company:
Magellan Midstream Partners, LP
P O Box 22186, MD 27-3,
Tulsa, OK 74121

Jasper County, S26, T30N, R31W

REVIEW SUMMARY

- Magellan Pipeline Co - Carthage has applied for authority to replace the existing top loading rack with a new bottom loading truck rack. A new 10,000 barrel internal floating roof storage tank for ethanol will also be constructed. The facility will also install an ethanol unloading skid near the loading rack to allow for the unloading of ethanol by truck to the new tank.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are benzene, ethyl benzene, hexane, toluene, 2,2,4 – trimethylpentane and xylene.
- Subpart XX, Standards of Performance for Bulk Gasoline Terminals of the New Source Performance Standards (NSPS) applies to Magellan Pipeline Co – Carthage.
- Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, applies to Magellan Pipeline Co – Carthage.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment. The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart R, *National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)*, does not apply to this source since the installation is not considered to be a major source in terms of HAPs emissions.
- A Vapor Combustion Unit (VCU) is being used to control the VOC and HAP emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule

10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOC, NO_x, CO and HAP are below de minimis levels.

- This installation is located in Jasper County, an attainment area for all criteria air pollutants.
- This installation is on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is required for the equipment as per Subpart XX, Standards of Performance for Bulk Gasoline Terminals of the New Source Performance Standards (NSPS).
- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Magellan Pipeline Co - Carthage operates a petroleum product storage and distribution installation in Jasper County. This bulk fuel terminal consists of a top loading truck rack and storage tanks. The installation is an existing major source of VOC. Permit #OP2004-014, a Part 70 Operating Permit, for this installation was completed on May 14, 2004.

The following construction permits have been issued to Magellan Pipeline Co - Carthage from the Air Pollution Control Program.

Table 1. Previous construction permits issued to Magellan Pipeline Co - Carthage.

Permit Number	Description
0595-001	Installation of one new 50,000 gallon horizontal fixed roof gasoline storage tank
0197-019	Increase in the annual throughput for Tank #225 from 1,010,000 gallons to 3,024,000 gallons.
092000-019	Propane loading system – Temporary Permit

PROJECT DESCRIPTION

Magellan Pipeline Co - Carthage proposes to construct and operate a new petroleum products loading rack to replace the existing top loading rack. The new rack will be a bottom loading rack with two loading bays. The loading rack will be constructed to meet all applicable requirements under 40 CFR 60 Subpart XX, Standards of Performance for Bulk Gasoline Terminals. The loading rack design will include a new vapor combustion unit (VCU) and associated equipment to capture and control volatile organic compounds (VOC) and hazardous air pollutants (HAP) emissions from loading operations.

Magellan Pipeline Co – Carthage will limit VOC emissions from the VCU stack to no more

than 35 mg VOC per liter of gasoline loaded as required under 40 CFR 60.502(b).

Magellan Pipeline Co – Carthage also proposes to construct a new 10,000 barrel internal floating roof storage tank to store ethanol. An ethanol unloading skid near the loading rack to allow for unloading of ethanol by truck into the new tank.

EMISSIONS/CONTROLS EVALUATION

The emission factor used for calculating uncontrolled emissions from the truck loading rack was obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 5.2 Transportation And Marketing Of Petroleum Liquids (1/95). The following equation from this section was used.

$$L_L = 12.46 \times \frac{SPM}{T}$$

where:

L_L = loading loss, pounds per 1000 gallons (lb/1000 gal) of liquid loaded

S = a saturation factor

P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia)

M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole)

T = temperature of bulk liquid loaded, °R (°F + 460)

Table 2. Loading Rack VOC Emission Factor Parameters

	Gasoline	Distillate	Ethanol
S	0.60	0.60	0.60
T	515.81	515.81	515.81
P	5.76	0.006	1.3011*
M	65.00	130	48.86
L_L	5.426	0.0113	0.9214

*denatured ethanol

The three significant pollutants emitted from this installation are carbon monoxide (CO), nitrogen oxides (NO_x), and VOCs. The CO and NO_x emissions are combustion products created by the VCU. The emission factors for CO and NO_x were provided by the applicant, and these factors are 0.0835 lb CO/1000 gallons of gasoline loaded and 0.0334 lb NO_x/1000 gallons of gasoline loaded. The VCU capture efficiency was taken as 98.7% as provided by the applicant. VOC emissions from the VCU stack will be controlled to no more than 35 mg VOC per liter of gasoline loaded as required under 40 CFR 60.502(b). 35 mg VOC per liter of gasoline loaded translates to an emission factor of 0.2915 lb VOC/1000 gallons of gasoline loaded.

The VOC emission is a summation of two components: 1) any VOCs that have not been oxidized in the VCU and are being emitted through the stack and 2) any VOCs that are not captured by the vapor recovery system on the loading rack (i.e. the vapor recovery system is not 100% efficient in capturing the VOCs).

Losses from the ethanol storage tank were calculated using EPA TANKS 4.09 software program.

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year) and a throughput of 210,000,000

gallons each of gasoline and distillate. Table 3 provides an emissions summary for this project.

Table 3. Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions**	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Potential Emissions
PM ₁₀	15.0	N/D	0.09	0.00	N/D
SO _x	40.0	N/D	0.02	0.00	N/D
NO _x	40.0	N/D	0.30	7.01	7.01
VOC	40.0	503.31	289.41	39.67	50.35
CO	100.0	N/D	0.11	17.54	17.54
HAPs	10.0/25.0	N/D	0.00	3.88	3.88

*N/A = Not Applicable; N/D = Not Determined

** Existing Potential Emissions of VOC were obtained from Permit #0595-001A and Permit #0197-019

Once the new bottom loading rack is commissioned and the old one demolished Magellan Pipeline Co – Carthage will have a plantwide potential to emit VOC of 50.35 tons per year down from 503.31 tons per year. All other regulated pollutants will be emitted at levels below de minimis from the entire installation as shown in Table 3. Magellan Pipeline Co – Carthage will hence be a minor source of VOC. The plantwide potential to emit VOC is made up of 39.67 tons per year from this project and 10.68 tons per year from existing storage tank losses.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of pollutant are below de minimis levels.

APPLICABLE REQUIREMENTS

Magellan Pipeline Co - Carthage shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110

The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.

- *Operating Permits, 10 CSR 10-6.065*
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170*
- *Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220*
- *Restriction of Emission of Odors, 10 CSR 10-3.090*

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Standards of Performance for Bulk Gasoline Terminals, 40 CFR Part 60, Subpart XX.*
- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR Part 60, Subpart Kb.*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

 Maurice Chemweno
 Environmental Engineer

 Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 23, 2006, received October 30, 2006, designating Magellan Pipeline Company, LP as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Site Survey, dated November 16, 2006.

Ms. Terri Hollomon
Air Quality Specialist
Magellan Midstream Partners, LP
PO Box 22186, MD 27-3
Tulsa, OK 74121

RE: New Source Review Permit - Project Number: 2006-10-131

Dear Ms. Hollomon:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Thank you,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:mcl

Enclosures

c: Southwest Regional Office
PAMS File 2006-10-131

Permit Number: