

Permit 2014

STATE OF MISSOURI



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: 022014-003

Project Number: 2013-12-022  
Installation Number: 155-0078

Parent Company: OakMar Terminal LLC

Parent Company Address: 11953 Prairie Industrial Parkway, Hennepin, IL 61327

Installation Name: OakMar Terminal LLC

Installation Address: 2353 North State Highway D, Hayti, MO 63851

Location Information: Pemiscot County, S01, T18N, R12E

Application for Authority to Construct was made for:  
Installation of a new facility to unload diesel from barges to storage and then from storage into trucks for distribution. This review was conducted in accordance with Section (6) of 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.

FEB - 4 2014

EFFECTIVE DATE

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 these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

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 sources(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(12)(A)10. "Conditions required by permitting authority."*

OakMar Terminal LLC  
Pemiscot County, S01, T18N, R12E

1. Operational Limitations
  - A. OakMar Terminal LLC shall handle less than 80,000,000 gallons of petroleum products per consecutive 12-month period
  - B. OakMar Terminal, LLC shall exclusively handle diesel or other petroleum products with a true vapor pressure less than or equal to 0.02 psi at 90°F.
  - C. OakMar Terminal, LLC shall maintain records of the monthly and 12-month rolling total amount of petroleum products handled using Attachment A or an equivalent form approved by the Air Pollution Control Program.
  - D. OakMar Terminal, LLC shall maintain MSDS for all petroleum products loaded at the installation.
  - E. For petroleum products that are not diesel, OakMar Terminal, LLC shall maintain records of the true vapor pressure of the petroleum product being loaded.
2. Haul Road (FS-02)

OakMar Terminal, LLC shall periodically water Haul Road (FS-02) whenever conditions exist which could cause visible fugitive emissions to enter the ambient air beyond the property boundary.
3. Capture and Control System Requirement – CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare
  - A. OakMar Terminal, LLC shall employ a vapor collection system to capture emissions from EP-02 Diesel Loading Rack. The permittee shall not operate EP-02 Diesel Loading Rack unless the vapor collection system is in operation.

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- B. Emissions to the atmosphere from the vapor collection system due to loading of liquid petroleum product into tank trucks are not to exceed 35 mg of total organic compounds per liter of petroleum product loaded.
  
- C. Loading of petroleum product into tank trucks previously containing gasoline shall be limited to vapor-tight tank trucks using the following procedures:
  - 1) OakMar Terminal, LLC shall obtain the vapor tightness documentation described in §60.505(b) for each tank truck which is to be loaded at the facility.
  - 2) OakMar Terminal, LLC shall require the tank identification number to be recorded as each tank truck is loaded at the facility.
  - 3) OakMar Terminal, LLC shall cross-check each tank identification number with the file tank vapor tightness within two weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:
    - a) If less than an average of one tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or
    - b) If less than an average of one tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually.
    - c) If either the quarterly or semiannual cross-check reveals that these conditions were not maintained, OakMar Terminal LLC shall return to biweekly cross-checks until such time as these conditions are again met.
  - 4) OakMar Terminal, LLC shall notify the owner or operator of each non-vapor-tight tank truck loaded at the facility within one week of the documentation cross-check.
  - 5) OakMar Terminal, LLC shall take steps to assure that the non-vapor-tight tank truck is not reloaded at the facility until vapor tightness documentation for the tank truck is obtained.
  
- D. OakMar Terminal, LLC shall act to assure that loadings of all 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.

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#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- E. OakMar Terminal, LLC shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a tank truck at the facility. The permittee shall create and maintain an operational/procedural manual for the vapor collection system. Example procedures include training drivers in the hookup procedures and posting visible reminder signs at the loading rack.
  - 1) The permittee shall submit a copy of their vapor collection system operational/procedural manual with their operating permit application for review and approval.
  
- F. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4.5 kPa during product loading. The gauge pressure in the delivery tank shall be measured according to the following procedures:
  - 1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with  $\pm 2.5$  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 tank truck.
  - 2) During the performance test, the pressure shall be recorded every five minutes while a truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position shall be tested at least once during the performance test.
  
- G. No pressure-vacuum vent in the vapor collection system shall begin to open at a system pressure less than 4.5 kPa.
  
- H. OakMar Terminal, LLC shall control emissions captured by the vapor collection system using an Open Flame Air Assisted Smokeless Flare (CD-01) as specified in the permit application. The permittee shall not operate EP-02 Diesel Loading Rack unless the flare is in operation.
  
- I. OakMar Terminal, LLC shall maintain a pilot flame in the flare at all time that vapors may be vented to the flare. The permittee shall maintain a flare flame at all times that vapors are actively being vented to the flare.

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#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- J. Each calendar month CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare and EP-02 Diesel Loading Rack shall be inspected during the loading of tank trucks for total organic compounds liquid or vapor leaks. Detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.
  - K. CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare shall be operated and maintained in accordance with the manufacturer(s) specifications. The manufacturer specifications shall be retained on-site.
  - L. OakMar Terminal, LLC shall maintain an operating and maintenance log for CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare which shall include the following:
    - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
    - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
4. Record Keeping and Reporting Requirements
- A. OakMar Terminal LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS or manufacturer specification sheets for all petroleum products handled by the facility.
  - B. OakMar Terminal LLC shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.
5. Performance Testing
- A. OakMar Terminal, LLC shall conduct an initial performance test to demonstrate that the flare and associated vapor collection system are in compliance with the requirements in §60.18(b) through (f).

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#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- B. These tests shall be performed within 60 days after achieving the maximum production rate of the installation, but not later than 180 days after initial start-up for commercial operation and shall be conducted in accordance with the procedures outlined in Special Condition 5.A.
- C. A completed Proposed Test Plan Form (enclosed) must be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.
- D. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
- E. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2013-12-022  
Installation ID Number: 155-0078  
Permit Number:

OakMar Terminal LLC  
2353 North State Highway D  
Hayti, MO 63851

Complete: December 27, 2013

Parent Company:  
OakMar Terminal LLC  
11953 Prairie Industrial Parkway  
Hennepin, IL 61327

Pemiscot County, S01, T18N, R12E

REVIEW SUMMARY

- OakMar Terminal LLC has applied for authority to install a new facility to unload diesel from barges into a storage tank and from the storage tank into tank trucks for distribution.
- HAP emissions are expected from the proposed equipment. HAPs are emitted from the storage of diesel in EP-01 Internal Floating Roof Storage Tank and from the displacement of gasoline and/or diesel vapors during the loading of diesel into non-dedicated tank trucks by EP-02 Diesel Loading Rack.
- 40 CFR Part 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* is not applicable to EP-01 Internal Floating Roof Storage Tank. The 5.6 million gallon tank is limited to the storage of petroleum products with a vapor pressure less than or equal to 0.02 psi (0.14 kPa) by Special Condition 1.B meeting the exemption at §60.110b(b).
- 40 CFR Part 60, Subpart XX – *Standards of Performance for Bulk Gasoline Terminals* is not applicable to the installation. The facility is restricted by Special Condition 1.B to handling petroleum products with a vapor pressure less than or equal to 0.02 psi at 90°F. This restriction prohibits the handling of gasoline which has a vapor pressure of at least 6.2 psi at 90°F.
- 40 CFR Part 63, Subpart R – *National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)* is not applicable to the installation. The facility is restricted by Special Condition 1.B to handling petroleum products with a vapor pressure less than or equal to 0.02 psi at 90°F. This restriction prohibits the handling of gasoline which has a vapor pressure of at least 6.2 psi at 90°F.



- 40 CFR Part 63, Subpart Y – *National Emission Standards for Marine Tank Vessel Loading Operations* is not applicable to the facility. The facility does not load any petroleum products onto marine vessels or tanks.
- 40 CFR Part 63, Subpart EEEE – *National Emission Standards for HAPs: Organic Liquids Distribution (Non-Gasoline)* is not applicable to the installation. The installation is not a major source of HAP.
- 40 CFR Part 63, Subpart BBBB – *National Emission Standards for HAPs for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities* is not applicable to the installation. The facility is restricted by Special Condition 1.B to handling petroleum products with a vapor pressure less than or equal to 0.02 psi at 90°F. This restriction prohibits the handling of gasoline which has a vapor pressure of at least 6.2 psi at 90°F.
- 40 CFR Part 63, Subpart CCCCC – *National Emission Standards for HAPs for Source Category: Gasoline Dispensing Facilities* is not applicable to the installation. The facility is restricted by Special Condition 1.B to handling petroleum products with a vapor pressure less than or equal to 0.02 psi at 90°F. This restriction prohibits the handling of gasoline which has a vapor pressure of at least 6.2 psi at 90°F.
- CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare are being used to control VOC emissions from EP-02 Diesel Loading Rack.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 *Construction Permits Required*. Potential emissions of VOC from this project are conditioned below de minimis levels. Potential emissions of PM are above the de minimis levels
- This installation is located in Pemiscot County, an attainment area for all criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2 #22 *Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels*; therefore, the installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.
- Ambient air quality modeling was not performed for this review. Ambient air quality modeling was not performed for PM emissions as no ambient air quality standard exists for PM.
- Emissions testing is required for CD-01 Vapor Collection System and Open Flame Air Assisted Smokeless Flare.
- An Intermediate or Part 70 Operating Permit is required for the installation, see the Installation Description for additional information.

- Approval of this permit is granted with special conditions.

### INSTALLATION DESCRIPTION

OakMar Terminal, LLC (155-0078) has requested to install a new facility which will receive diesel from barges. The diesel will be stored in a storage tank and then loaded out by non-dedicated tank trucks for distribution. OakMar Terminal, LLC is one installation for permitting purposes with Marquis-Missouri Terminal, LLC (155-0077). Marquis-Missouri Terminal, LLC operates an existing crude oil storage and loadout operation in Hayti, Missouri. OakMar Terminal, LLC and Marquis-Missouri Terminal, LLC were determined to be one installation (see definition at 10 CSR 10-6.020(2)(I)17) as the following three criteria were met:

1. The two facilities share the same SIC code: both facilities share the primary SIC code 5171 *Petroleum Bulk Stations and Terminals*.
2. The two facilities are located on one or more contiguous or adjacent properties: both facilities are located at 2353 North State Highway D in Hayti, Missouri.
3. The two facilities are under common control: both facilities list their responsible official as D. L. Marquis and share a common parent company contact person (Elizabeth Steinhour) and mailing address (11953 Prairie Industrial Parkway, Hennepin, Illinois).

The unconditioned potential to emit of the installation requires the installation to obtain an Intermediate or Part 70 Operating Permit. The installation must choose one of the following options:

- ◆ Obtain one Intermediate Operating Permit for the installation (containing both facilities) within 90 days after the issuance of this permit.
- ◆ Obtain one Part 70 Operating Permit for the installation (containing both facilities) within one year after the issuance of this permit.
- ◆ Obtain two Part 70 Operating Permits – one Part 70 operating permit for OakMar Terminal LLC and one Part 70 operating permit for Marquis-Missouri Terminal LLC within one year after the issuance of this permit.

No permits have been issued to OakMar Terminal LLC from the Air Pollution Control Program. The following New Source Review permits have been issued to Marquis-Missouri Terminal, LLC from the Air Pollution Control Program:

**Table 1: Permit History**

Permit Number	Description
092012-001	Installation of a crude oil storage and loadout operation
2012-11-055	Basic Operating Permit
092012-001A	Amendment

## PROJECT DESCRIPTION

This project is for the construction of a new facility, OakMar Terminal, LLC, at an existing installation. OakMar Terminal, LLC will receive diesel from barges on the Mississippi River. The diesel will be pumped into an existing 5.6 million gallon Internal Floating Roof Tank (EP-01) purchased from Marquis-Missouri Terminal, LLC. OakMar Terminal, LLC will load diesel into non-dedicated tank trucks using a 180,000 gal/hr Diesel Loading Rack (EP-02). Emissions from EP-02 are captured by a Vapor Collection System and combusted by an Open Flame Air Assisted Smokeless Flare (CD-01). The flare includes two 0.5 MMBtu/hr natural gas pilot lights and can supply up to 10.26 MMBtu/hr enriching natural gas. The non-dedicated tank trucks will enter and leave OakMar Terminal, LLC by a unpaved 1,740 foot Haul Road (FS-02).

## EMISSIONS/CONTROLS EVALUATION

Emissions from EP-01 Internal Floating Roof Tank were obtained from EPA software TANKS4.0.9d based upon a capacity of 5.6 million gallons and a maximum hourly throughput of 180,000 gallons per hour (based upon the maximum hourly design rate of EP-02 Diesel Loading Rack). Meteorological data for Memphis, Tennessee was chosen as it was determined to be the closest city to Hayti, Missouri contained within the TANKS 4.0.9d meteorological database. Annual emissions from the tanks are voluntarily restricted by the 80,000,000 gallon per year limit in Special Condition 1.A. EP-01 is restricted to handling diesel or other petroleum products with a true vapor pressure less than or equal to 0.02 psi by Special Condition 1.B. MSDS for the diesel indicates a maximum naphthalene content of 0.5 wt%.

Roof tank landing emissions were calculated using equations from AP-42 Section 7.1.3.2.2 "Roof Landings" (November 2006). The roof tank landing calculations assumed a maximum of four drain-dry landings per year for EP-01 and a maximum of eight roof landings with a 6 foot liquid heel per year for EP-01. Each roof landing event was evaluated at a maximum length of six days at a temperature of 91.5°F to represent the worst-case average daily temperature.

Emissions from EP-02 Diesel Loading Rack were calculated based upon a maximum design rate of 180,000 gallons per hour using Equation 1 from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 5.2.2.1.1 "Loading Losses" (July 2008) using a saturation factor of 0.6 (AP-42 Table 5.2-1), a true vapor pressure of 7.7563 psia, a molecular weight of 66 lb/lb-mole, and a temperature of 66°F. The facility will not be receiving tank trucks with a dedicated normal service; therefore, to be conservative it was assumed that the tank trucks previously contained gasoline and are being loaded with diesel. Annual emissions from EP-02 Diesel Loading Rack are restricted by the 80,000,000 gallon per year limit in Special Condition 1.A.

EP-02 Diesel Loading Rack uses a Vapor Collection System to capture emissions. The Vapor Collection System was given an efficiency of 98.7 percent in calculations. Special Conditions 3.A through 3.G, 3.J through 3.L, and 5 were included to ensure that the installation achieves or exceeds 98.7 percent capture during actual operation.

Vapors collected by the Vapor Collection System are sent to CD-01 Open Flame Air Assisted Smokeless Flare. CD-01 was given a destruction efficiency of 98 percent. Special Condition 3.H through 3.L and 5 were included to ensure that the installation achieves or exceeds 98 percent destruction during actual operation.

Emissions from the combustion of vapors in CD-01 were calculated using emission factors obtained from AP-42 Section 13.5 "Industrial Flares" (September 1991). The maximum hourly vapor loading was determined to be 28.33 MMBtu/hr. Emissions of CO<sub>2</sub> from the combustion of vapors in the flare were conservatively calculated by assuming 100 percent of the weight of captured vapors was carbon that could combine with ambient O<sub>2</sub> to produce CO<sub>2</sub>. Emissions of SO<sub>x</sub> from combustion of vapors in the flare were calculated based upon the federal 15 ppm sulfur standard for on-road diesel fuel. Annual emissions from the combustion of vapors in the flare are restricted by the 80,000,000 gallon per year limit in Special Condition 1.A.

Emissions from the two 0.5 MMBtu/hr natural gas pilot lights and the 10.26 MMBtu/hr enriching natural gas were calculated using emission factors from AP-42 Section 1.4 "Natural Gas Combustion" (July 1998) and 40 CFR Part 98 – *Mandatory Greenhouse Gas Reporting*. These sources were evaluated at 8,760 hours of annual operation and are not considered restricted by the 80,000,000 gallon per year limit in Special Condition 1.A.

Emissions of HAP, Toluene, Xylene, Ethylbenzene, Hexane, Trimethylbenzene, Benzene, and Naphthalene were calculated using a mass balance approach. No MSDS for gasoline was provided by the installation. The HAP content of the gasoline was estimated based upon the specification profile in TANKS4.0.9d and gasoline MSDS obtained online to be 10 wt% toluene, 10 wt% xylene, 5 wt% hexane, 5 wt% ethylbenzene, 3 wt% trimethylbenzene, 2 wt% benzene, and 1 wt% naphthalene, resulting in a combined HAP content of 36 wt%. Each calculated emission of VOC was multiplied by the weight percent of each HAP to obtain the emissions of HAP.

VOC emissions from FS-01 Equipment Leaks were calculated using emission factors from EPA document *Protocol for Equipment Leak Emission Estimates* Table 2.1 (November 1995).

Emissions from FS-02 Haul Road were calculated using equations from AP-42 Section 13.2.2 "Unpaved Roads" (November 2006). Annual emissions from FS-02 Haul Road are restricted by the 80,000,000 gallon per year limit in Special Condition 1.A.

The following table provides an emissions summary for this project. Existing potential emissions from Marquis-Missouri Terminal, LLC were taken from Permit 092012-001A, except emissions from one of the tanks was removed (as the tank is being repurposed by OakMar Terminal, LLC and has been included in this project's potential emissions). Existing actual emissions were taken from Marquis-Missouri Terminal's 2012 EIQ (note: the installation began operation in 2012; therefore, the actual emissions do not represent a full year of operation). Potential emissions of the application represent the potential of the OakMar Terminal, LLC facility.

**Table 2: Emissions Summary (tons per year)**

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2012 EIQ)	Conditioned Potential Emissions of the Application	Installation Conditioned Potential Emissions
PM	25.0	0.10	N/A	32.23	32.34
PM <sub>10</sub>	15.0	0.41	0.001	9.52	9.93
PM <sub>2.5</sub>	10.0	0.41	0.001	1.26	1.66
SO <sub>x</sub>	40.0	0.03	0.0001	0.04	0.07
NO <sub>x</sub>	40.0	6.33	0.22	4.88	11.21
VOC	40.0	32.16	5.48	19.76	51.92
CO	100.0	9.77	1.13	6.07	15.84
GHG (CO <sub>2</sub> e)	100,000	9,163.47	N/A	6,404.60	15,568.07
HAP	25.0	4.75	0.30	3.27	8.02
Toluene (108-88-3)	10.0	1.55	1.63	0.95	2.50
Xylene (1330-20-7)	10.0	1.55	1.63	0.95	2.50
Hexane (110-54-3)	10.0	0.93	0.98	0.48	1.41
Benzene (71-43-2)	10.0	0.62	0.65	0.19	0.81
Ethylbenzene (100-41-4)	10.0	N/A	N/A	0.48	0.48
Naphthalene (91-20-3)	10.0	N/A	N/A	0.14	0.14

N/A = Not Applicable

Conditioned Potential Emissions of the Application are below the SMALs for toluene, xylene, hexane, ethylbenzene, and naphthalene of 10 tpy and benzene of 2 tpy; therefore, HAP modeling was not performed.

Unconditioned VOC and HAP emissions from OakMar Terminal, LLC were calculated to be 215.86 tpy and 62.12 tpy, respectively; therefore, the new installation is required to obtain an Intermediate or Part 70 Operating Permit.

#### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 *Construction Permits Required*. Potential emissions of VOC are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels.

## APPLICABLE REQUIREMENTS

OakMar Terminal LLC and Marquis-Terminal LLC 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.

### GENERAL REQUIREMENTS

- 10 CSR 10-6.065 *Operating Permits*
- 10 CSR 10-6.110 *Submission of Emission Data, Emission Fees and Process Information*
- 10 CSR 10-6.165 *Restriction of Emission of Odors*
- 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*
- 10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants*
- 10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds*

### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Alana L. Rugen, P.E.  
New Source Review Unit

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Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 5, 2013, received December 16, 2013, designating OakMar Terminal LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- U.S. EPA software TANKS4.0.9d.



## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	..... National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SIC</b> .....	Standard Industrial Classification
<b>GHG</b> .....	Greenhouse Gas	<b>SIP</b> .....	State Implementation Plan
<b>gpm</b> .....	gallons per minute	<b>SMAL</b> .....	Screening Model Action Levels
<b>gr</b> .....	grains	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>HAP</b> .....	Hazardous Air Pollutant	<b>tph</b> .....	tons per hour
<b>hr</b> .....	hour	<b>tpy</b> .....	tons per year
<b>hp</b> .....	horsepower	<b>VMT</b> .....	vehicle miles traveled
<b>lb</b> .....	pound	<b>VOC</b> .....	Volatile Organic Compound
<b>lbs/hr</b> .....	pounds per hour		
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		



Ms. Elizabeth Steinhour  
Director of Environmental Affairs  
OakMar Terminal LLC  
11953 Prairie Industrial Parkway  
Hennepin, IL 61327

RE: New Source Review Permit - Project Number: 2013-12-022

Dear Ms. Steinhour:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions 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 submittal of an Intermediate/Part 70 operating permit application 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 Alana Rugen, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:arl

Enclosures

c: Southeast Regional Office  
PAMS File: 2013-12-022

Permit Number: