

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

April 15, 2014

PERMIT TO INSTALL  
153-09B

ISSUED TO  
Great Lakes Petroleum Terminal, LLC

LOCATED AT  
12500 Stocker Road  
Detroit, Michigan

IN THE COUNTY OF  
Wayne

STATE REGISTRATION NUMBER  
B4752

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: <b>January 20, 2014</b>	
DATE PERMIT TO INSTALL APPROVED: <b>April 15, 2014</b>	SIGNATURE: 
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant / Measurement Abbreviations</b>	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO <sub>2</sub> e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfuction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EU60-1	2,590,000 gallon liquid asphalt storage tank No. 60-1 with emissions control.	FGSTORAGE&HNDLING
EU60-2	2,590,000 gallon liquid asphalt storage tank No. 60-2 with emissions control.	FGSTORAGE&HNDLING
EU60-3	2,590,000 gallon liquid asphalt storage tank No. 60-3 with emissions control.	FGSTORAGE&HNDLING
EU60-4	2,590,000 gallon liquid asphalt storage tank No. 60-4 with emissions control.	FGSTORAGE&HNDLING
EU010	397,000 gallon raw material storage tank No. T10 with emissions control.	FGSTORAGE&HNDLING
EU015	61,200 gallon raw material storage tank No. T15 with emissions control.	FGSTORAGE&HNDLING
EU016	63,500 gallon raw material storage tank No. T16 with emissions control.	FGSTORAGE&HNDLING
EU017	63,900 gallon raw material storage tank No. T17 with emissions control.	FGSTORAGE&HNDLING
EU018	64,900 gallon raw material storage tank No. T18 with emissions control.	FGSTORAGE&HNDLING
EU019	62,500 gallon raw material storage tank No. T19 with emissions control.	FGSTORAGE&HNDLING
EU020	64,900 gallon raw material storage tank No. T20 with emissions control.	FGSTORAGE&HNDLING
EU021	62,500 gallon raw material storage tank No. T21 with emissions control.	FGSTORAGE&HNDLING
EU022	65,000 gallon raw material storage tank No. T22 with emissions control.	FGSTORAGE&HNDLING
EU025	209,000 gallon raw material storage tank No. T25 with emissions control.	FGSTORAGE&HNDLING
EU026	2,169,000 gallon raw material storage tank No. T26 with emissions control.	FGSTORAGE&HNDLING
EU027	1,666,000 gallon raw material storage tank No. T27 with emissions control.	FGSTORAGE&HNDLING
EUBARGEUNLOAD	Liquid asphalt barge loading/unloading station.	FGSTORAGE&HNDLING
EURAILCARUNLOAD	Liquid asphalt railcar loading/unloading station.	FGSTORAGE&HNDLING
EUTRUCKLOAD	Liquid asphalt truck loading/unloading rack.	FGSTORAGE&HNDLING
EUBOILER1	14.7 MMBtu/hour natural gas-fired boiler. This is the primary boiler.	FGBOILERS&HEATRS
EUBOILER2	14.5 MMBtu/hour natural gas-fired boiler. This is the back-up boiler.	FGBOILERS&HEATRS

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EUACHEATER1	9.9 million Btu/hour thermal fluid heater.	FGBOILERS&HEATRS
EUACHEATER2	6.0 million Btu/hour thermal fluid heater.	FGBOILERS&HEATRS
EU028	5,250,000 gallon liquid asphalt storage tank No. T28 with emissions control.	FGSTORAGE&HNDLING
EU029	5,250,000 gallon liquid asphalt storage tank No. T29 with emissions control.	FGSTORAGE&HNDLING
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGSTORAGE&HNDLNG	Asphalt cement storage tanks having emissions control, loading racks for barges, railcars, and/or trucks loading and unloading operations, and ancillary equipment.	EU60-1, EU60-2, EU60-3, EU60-4, EU010, EU015, EU016, EU017, EU018, EU019, EU020, EU021, EU022, EU025, EU026, EU027, EUBARGEUNLOAD, EURAILCARUNLOAD, EUTRUCKLOAD, EU028, EU029
FGBOILERS&HEATRS	Natural gas-fired boilers and heaters used for keeping the asphalt cement at temperatures typically ranging from 280°F to 320°F.	EUBOILER1, EUBOILER2, EUACHEATER1, EUACHEATER2

**The following conditions apply to: FGSTORAGE&HNDLNG**

**DESCRIPTION:** Asphalt cement storage tanks having emissions control, loading racks for barges, railcars, and/or trucks loading and unloading operations, and ancillary equipment.

**Emission Units:** EU60-1, EU60-2, EU60-3, EU60-4, EU010, EU015, EU016, EU017, EU018, EU019, EU020, EU021, EU022, EU025, EU026, EU027, EUBARGEUNLOAD, EURAILCARUNLOAD, EUTRUCKLOAD, EU028, EU029

**POLLUTION CONTROL EQUIPMENT:**

A vapor condensation and recovery system or an equivalent system.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	2.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGSTORAGE&HNDLING	SC VI.1, VI.2	R 336.1702(a)

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total asphalt cement received into tanks in FGSTORAGE&HNDLING	197,068 tons of asphalt cement per year	12-month rolling time period as determined at the end of each calendar month	FGSTORAGE&HNDLING	SC VI.2	R 336.1225, R 336.1702(a)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall maintain and operate the vapor condensation and recovery system, or an equivalent system, according to the procedures outlined in the approved preventative maintenance plan. **(R 336.1910, R 336.1911)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not store asphalt cement in any tank in FGSTORAGE&HNDLING unless a properly designed and operated vapor condensation system, or an equivalent system, is installed, maintained, and operated in a satisfactory manner. **(R 336.1901, R 336.1910)**
2. The permittee shall equip and maintain each asphalt cement storage tank in FGSTORAGE&HNDLING with a properly designed and operated vapor condensation and recovery system or an equivalent system. **(R 336.1901, R 336.1910)**

**V. TESTING/SAMPLING**

NA

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, calculations of the VOC emission rate for each month and the 12-month rolling time period, as determined at the end of each calendar month, for FGSTORAGE&HANDLNG. All records shall be kept on file at the facility and made available to the Department upon request. **(R 336.1702(a))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period, as determined at the end of each calendar month, records of the amount of liquid asphalt cement loaded and unloaded in FGSTORAGE&HANDLNG. All records shall be kept on file at the facility and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
4. The permittee shall monitor and record the temperature of asphalt cement in each tank at least once per week when the tank temperature set point is less than 300°F. The permittee shall monitor and record the temperature of asphalt cement in each tank at least once per day when the tank temperature set point is greater than or equal to 300°F. If at any time the monitored temperature in any asphalt cement storage tank exceeds 370°F the permittee shall take actions to quickly and safely reduce the temperature of the asphalt cement stored in that tank. The permittee shall keep a record of these actions on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1901)**
5. The permittee shall maintain current Material Safety Data Sheets of the materials stored and handled at the asphalt terminal on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702)**

#### **VII. REPORTING**

1. The permittee shall notify the AQD District Supervisor, in writing, of the completion of installation of each tank vapor condensation and recovery system, or equivalent system, within 15 days of installation. **(R 336.1201(7)(a))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA

#### **IX. OTHER REQUIREMENTS**

NA

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to: FGBOILERS&HEATRS**

**DESCRIPTION:** Natural gas-fired boilers and heaters used for keeping the asphalt cement at temperatures typically ranging from 280°F to 320°F.

**POLLUTION CONTROL EQUIPMENT:**

NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. For those emission units in FGBOILERS&HEATRS subject to 40 CFR Part 60 Subpart Dc, the permittee shall monitor emissions and operating information in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc. This shall include recordkeeping of the fuels combusted in such boilers or heaters during each calendar month. The permittee shall keep records of all source emissions data and operating information on file at the facility and make them available upon request. **(40 CFR 60.48c(a))**

**VII. REPORTING**

1. The permittee shall submit applicable notifications specified in 40 CFR 60.48c(a). **(40 CFR 60.48c(a))**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with all applicable provisions of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, as specified in 40 CFR Part 60 Subparts A and Dc. **(40 CFR Part 60, Subparts A and Dc)**