

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

September 25, 2015

**PERMIT TO INSTALL**  
149-15

**ISSUED TO**  
Buckeye Terminals, LLC

**LOCATED AT**  
700 South Deacon Street  
Detroit, Michigan

**IN THE COUNTY OF**  
Wayne

**STATE REGISTRATION NUMBER**  
B2247

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>August 14, 2015</b>	
DATE PERMIT TO INSTALL APPROVED: <b>September 25, 2015</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	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2</sub> e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 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>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EULOADING	Loading rack containing four bays for loading gasoline and diesel fuel controlled by a vapor recovery unit or a temporary vapor combustion unit..	1934/2015	NA
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.			

**The following conditions apply to: EULODGING**

**DESCRIPTION:** Loading rack containing four bays for loading gasoline and diesel fuel.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Vapor recovery unit (VRU) using carbon adsorption or temporary vapor combustion unit (VCU)

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.7 pounds per 1000 gallons of gasoline loaded	6 hour period as specified within the test methods and procedures at 40 CFR 60.503	EULODGING	SC V.1, SC V.2, SC VI.1, SC VI.2, SC VI.6, SC VI.7	R 336.1609(2)
2. VOC	35 mg/liter of gasoline loaded	6 hour period as specified within the test methods and procedures at 40 CFR 60.503	EULODGING	SC IV.6, SC V.1, SC V.2, SC V.3 SC VI.1, SC VI.2, SC VI.6, SC VI.7	40 CFR 60.502(b), 40 CFR 63.11088(a)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not allow the loading of any organic compound that has a true vapor pressure of more than 1.5 psia at actual conditions from any stationary vessel into any delivery vessel located at an existing loading facility which has a throughput of 5,000,000 or more gallons of such compounds per year, unless such delivery vessel is filled by a submerged fill pipe. **(R336.1609(1))**
2. Any delivery vessel located at the gasoline loading rack shall be controlled by a vapor recovery system that captures all displaced organic vapor and air by means of a vapor-tight collection line and recovers or combusts the organic vapors such that emissions to the atmosphere do not exceed 0.7 pounds of organic vapor per 1000 gallons of organic compounds loaded. **(R336.1609)(2))**
3. Any delivery vessel located at a gasoline loading rack shall be equipped, maintained, or controlled with all of the following:
  - a. An interlocking system or procedure to ensure that the vapor-tight collection line is connected before any organic compound can be loaded.
  - b. A device to ensure that the vapor tight collection line shall close upon disconnection so as to prevent the release of organic vapor.
  - c. A device to accomplish complete drainage before the loading device is disconnected or a device to prevent liquid drainage from the loading device when not in use.
  - d. Pressure-vacuum relief valves that are vapor-tight and set to prevent the emission of displaced organic vapor during the loading of the delivery vessel except under emergency conditions.
  - e. Hatch openings that are kept closed and vapor tight during the loading of the delivery vessel. **(R336.1609)(3))**

4. A person who is responsible for the operation of all control measures required by this rule shall develop written procedures for the operation of all such control measures. Such procedures shall be posted in an accessible, conspicuous location near the loading device. **(R336.1609(4))**
5. The vapor recovery unit (VRU) or temporary vapor combustion unit (VCU) shall be installed, maintained, and operated in a satisfactory manner. **(R 336.1225, R 336.1910)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 450 mm of water during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR 60.503(d). **(40 CFR 60.502(h))**
2. No pressure vacuum-vent in the bulk gasoline terminal's vapor collection system shall begin to open at system pressure less than 450 mm of water. **(40 CFR 60.502(i))**

#### **V. TESTING/SAMPLING**

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

1. 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 compound liquid or vapor leaks. For the purpose of this inspection, detection methods such as sight, sound or smell are acceptable. Records of the inspection shall be kept and maintained in accordance with EULOADING condition VI.1 through VI.5. **(40 CFR 60.502(j))**
2. Verification of VOC emission rates from EULOADING by testing at owner's expense in accordance with the EPA Reference Test Method 25A or EPA Reference Test Method 25B will be required at AQD Supervisor's request. Stack testing procedures and location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 30 days prior to testing, a complete stack test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of the complete test results to the AQD within 60 days following the last date of the test. **(R 336.2004 (1)(u), 40 CFR 60.503)**
3. Each owner or operator of a bulk gasoline terminal subject to the emission standard in item 1(b) of Table 2 to Subpart BBBBBB must comply with the requirements in paragraphs (a) through (d) of §63.11092. **(40 CFR 63.11092(a))**
4. If the permittee is operating EULOADING in compliance with an enforceable State permit that requires the loading rack to meet an emission limit of 80 milligrams (mg), or less, per liter of gasoline loaded (mg/l), the permittee may submit a statement by a responsible official certifying the compliance status of EULOADRACK in lieu of the test required under paragraph (a)(1) of §63.11092. **(40 CFR 63.11092(a)(2))**

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

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

1. Records of VRU operations shall be kept for all times that gasoline is loaded. The records shall be made available to AQD upon request. **(R336.1609(2))**
2. On a quarterly basis, the permittee shall verify compliance with R 336.1609(3). **(R336.1609(3))**
3. The permittee shall record each detection of a leak and the source of the leak shall be repaired as soon as practicable, but no later than fifteen calendar days after the leak is detected. **(40 CFR 60.502(j))**



4. The permittee shall keep a record of each monthly leak inspection record required under 40 CFR 60.502(j). The leak inspection records shall include, as a minimum, the following information:  
**(40 CFR 60.505(c))**
  - a. Date of inspection **(40 CFR 60.505(c)(1))**
  - b. Findings: (may indicate no leaks discovered; or location, nature, and severity of each leak)  
**(40 CCFR 60.505(c)(2))**
  - c. Leak Determination Method **(40 CFR 60.505(c)(3))**
  - d. Corrective action (date each leak repaired, reasons for any repair interval in excess of 15 days)  
**(40 CFR 60.505 (c)(4))**
  - e. Inspector name and signature **(40 CFR 60.505(5))**
5. The permittee shall keep records of all replacements or additions of components performed on an existing vapor processing system. **(40 CFR 60.505(f))**
6. The permittee shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems, as specified in paragraphs (b)(1) through (5) of §63.11092. **(40 CFR 63.11092 (b))**
7. For each performance test conducted under paragraph (a)(1) of §63.11092, the permittee shall determine a monitored operating parameter value for the vapor processing system using the procedures specified in paragraphs (b)(1)(i) through (iv) of §63.11092. During the performance test, continuously record the operating parameter as specified under paragraphs (b)(1)(i) through (iv) of §63.11092.  
**(40 CFR 63.11092 (b)(1))**
  - a. Where a carbon adsorption vapor recovery unit (VRU) is used, the owner or operator shall monitor the operation of the system as specified below:
    - i. A continuous emissions monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream; or
    - ii. The permittee may choose to meet the requirements listed in paragraph (b)(1)(i)(B)(1) and (2) of §63.11092. **(40 CFR 63.11092 (b)(1)(i))**
  - b. Where a thermal oxidation system other than a flare or VCU is used, the permittee shall monitor the operation of the system as specified below:
    - i. A continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs; or
    - ii. The permittee may choose to meet the requirements listed in paragraphs (b)(1)(iii)(B)(1) and (2) of §63.11092. **(40 CFR 63.11092 (b)(1)(iii))**

## **VII. REPORTING**

1. The permittee shall notify the AQD District Supervisor, within 15 days of each of the following events: each time the temporary VCU is brought on site; the date of startup of the temporary VCU; and each time the temporary VCU is removed from the site. **(R336.201(3))**
2. The permittee shall submit reports for EULODGING in accordance with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and BBBBBB, as they apply to EULODGING. **(40 CFR Part 63, Subparts A and BBBBBB)**

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVVCU	96	13	R 336.1225 40 CFR 52.21(c) and (d)

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart XX. **(40 CFR Part 60 Subparts A & XX)**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and BBBB, for Gasoline Distribution Bulk Terminals, Bulk Plants and Pipeline Facilities. **(40 CFR 63 Subparts A and BBBB)**