

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

May 26, 2016

PERMIT TO INSTALL  
122-15

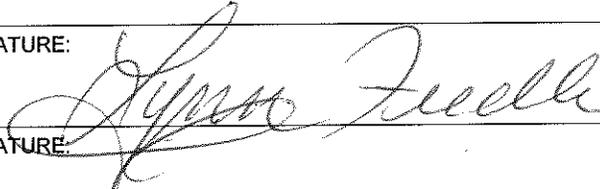
ISSUED TO  
Marathon Petroleum Company LP

LOCATED AT  
1300 South Fort Street  
Detroit, Michigan

IN THE COUNTY OF  
Wayne

STATE REGISTRATION NUMBER  
A9831

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>July 9, 2015</b>	
DATE PERMIT TO INSTALL APPROVED: <b>May 26, 2016</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	PM <sub>10</sub>	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM <sub>2.5</sub>	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>
EU22-V88-S1	Tank 88, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V89-S1	Tank 89, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V90-S1	Tank 90, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V91-S1	Tank 91, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V92-S1	Tank 92, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V93-S1	Tank 93, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V94-S1	Tank 94, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-V95-S1	Tank 95, Area 22. A pressure vessel for the storage of petroleum hydrocarbons with a true vapor pressure of more than 1.5 psia. Capacity = up to 126,000 gallons	Date of PTI	FGPVTANKS-S1
EU22-MELVLPGRAILACK-S1	LPG Railcar Loading Facility, Area 22. The group includes all equipment (i.e. piping, vessels, valves, pumps, and loading arms) associated with the LPG loading rack in the Melvindale tank farm. For the purposes of this permit, LPG means a material in liquid form that is composed predominantly of any of the following hydrocarbons or their mixtures: propane, propylene, butane, isobutane, butylenes, and C3-C4 mixtures.	Date of PTI	FGPROCUNITS-S1

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: EU22-MELVLPGRAILACK-S1**

**DESCRIPTION:** LPG Railcar Loading Facility, Area 22. The group includes all equipment (i.e. piping, vessels, valves, pumps, and loading arms) associated with the LPG loading rack in the Melvindale tank farm. For the purposes of this permit, LPG means a material in liquid form that is composed predominantly of any of the following hydrocarbons or their mixtures: propane, propylene, butane, isobutane, butylenes, and C3-C4 mixtures.

**Flexible Group ID:** FGPROCUNITS-S1

**POLLUTION CONTROL EQUIPMENT:** Unifiner Flare

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only fill railcars with LPG using a pressurized loading system that does not allow organic vapor to be displaced from the railcar during loading. **(R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall ensure that the railcar is equipped, maintained and controlled with all of the following:
  - a. Pressure-vacuum relief valves that are vapor-tight and set to prevent the emission of organic vapor during the loading of the railcar, except under emergency conditions. **(Rule 702(a))**
  - b. Hatch openings that are kept closed and vapor-tight during the loading of the railcar. **(Rule 702(a))**
2. The permittee shall ensure that the loading device is equipped, maintained and controlled with all of the following:
  - a. A device to ensure that the loading device shall close upon disconnection so as to prevent the release of organic vapor. **(R 336.1702(a))**
  - b. A device to direct excess hydrocarbons in loading hoses after railcar loadings to the Unifiner Flare for combustion for control. **(R 336.1702(a))**
3. The permittee shall not operate EU22-MELVLPGRAILACK-S1 unless a high pressure shutdown system to minimize VOC emissions from the pressurized filling of railcars is installed, maintained, and operated in a satisfactory manner. **(R 336.1702(a))**

**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))**

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. The permittee shall develop written procedures for the operation of all emission control measures. Such procedures shall be posted in an accessible, conspicuous location near the loading device. **(R 336.1702(a))**
2. The permittee shall implement a program to monitor at least 90 percent of the flanges and connectors in gas/vapor and light liquid VOC service in EU22-MELVLPGRAILACK-S1. The program shall meet the following requirements. **(R 336.1205, R 336.1225, R 336.1702(a))**
  - a. Monitoring shall be conducted on a quarterly basis, using test methods and procedures described in Appendix 5-S1 of Renewable Operating Permit No. MI-ROP-A9831-2012b.
  - b. A leak shall be defined as an instrument reading of 500 ppm or greater, as specified in NSPS Subpart VVa.
  - c. Flanges and connectors may be excluded from the monitoring program if they are "unsafe to monitor" as defined in 40 CFR 60.482-7(g)(1), or "difficult to monitor" as defined in 40 CFR 60.482-7(h)(1).
  - d. Permittee shall maintain records utilizing the procedures in Appendix 4-S1 of Renewable Operating Permit No. MI-ROP-A9831-2012b.

**Footnotes:**

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

**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>
FGPVTANKS-S1	Pressure vessels for the storage of petroleum liquids with a true vapor pressure greater than 1.5 psia	EU22-V88-S1, EU22-V89-S1, EU22-V90-S1, EU22-V91-S1, EU22-V92-S1, EU22-V93-S1, EU22-V94-S1, EU22-V95-S1, EUTANK87-S1, EUTANK96-S1, EUTANK176-S1

**The following conditions apply to: FGPVTANKS-S1**

**DESCRIPTION:** Pressure vessels for the storage of petroleum liquids with a true vapor pressure greater than 1.5 psia

**Emission Units:** EU22-V88-S1, EU22-V89-S1, EU22-V90-S1, EU22-V91-S1, EU22-V92-S1, EU22-V93-S1, EU22-V94-S1, EU22-V95-S1, EUTANK87-S1, EUTANK96-S1, EUTANK176-S1

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not store any organic compound having a true vapor pressure of more than 1.5 psia at actual conditions in any of the following tanks unless the tank is a pressure tank capable of maintaining working pressures sufficient to prevent organic vapor or gas loss to the atmosphere at all times, except under emergency conditions.

<b>Tanks</b>	<b>Underlying Applicable Requirements</b>
EUTANK87-S1, EUTANK96-S1, EUTANK176-S1	R 336.1604(1)(a), R 336.1605(1)(a)
EU22-V88-S1, EU22-V89-S1, EU22-V90-S1, EU22-V91-S1, EU22-V92-S1, EU22-V93-S1, EU22-V94-S1, EU22-V95-S1	R 336.1702(d)

2. All openings in the following tanks shall be equipped with covers, lids or seals such that the covers, lids or seals are in a closed position at all times, except when in actual use. **(R 336.1605(2))**

<b>Tanks</b>	<b>Underlying Applicable Requirements</b>
EUTANK87-S1, EUTANK96-S1, EUTANK176-S1	R 336.1604(2), R 336.1605(2)
EU22-V88-S1, EU22-V89-S1, EU22-V90-S1, EU22-V91-S1, EU22-V92-S1, EU22-V93-S1, EU22-V94-S1, EU22-V95-S1	R 336.1702(d)

**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. The permittee shall monitor and record the pressure of each tank in FGPVTANKS-S1, on a daily basis. **(R 336.1213(3), R 336.1702(a))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. The permittee shall implement a program to monitor at least 90 percent of the flanges and connectors in gas/vapor and light liquid VOC service in FGPVTANKS-S1. The program shall meet the following requirements. **(R 336.1205, R 336.1225, R 336.1702(a))**
  - a. Monitoring shall be conducted on a quarterly basis, using test methods and procedures described in Appendix 5-S1 of Renewable Operating Permit No. MI-ROP-A9831-2012b.
  - b. A leak shall be defined as an instrument reading of 500 ppm or greater, as specified in NSPS Subpart VVa.
  - c. Flanges and connectors may be excluded from the monitoring program if they are "unsafe to monitor" as defined in 40 CFR 60.482-7(g)(1), or "difficult to monitor" as defined in 40 CFR 60.482-7(h)(1).
  - d. Permittee shall maintain records utilizing the procedures in Appendix 4-S1 of Renewable Operating Permit No. MI-ROP-A9831-2012b.
2. Within 180 days after the last tank in FGPVTANKS-S1 has been placed into service, the permittee shall remove tanks 22T80, 22T81, 22T82, 22T83, 22T84, 22T89, 22T90, 22T91, 22T92, 22T93, 22T94, 22T95, 22T98, 22T99, 22T190, and 22T191 from service.<sup>3</sup> **(R 336.1201(3))**

**Footnotes:**

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

<sup>3</sup>This condition is included at the request of the permittee.