

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

April 21, 2016

**PERMIT TO INSTALL  
42-05B**

**ISSUED TO  
CITGO Petroleum Corporation**

**LOCATED AT  
2233 South Third Street  
Niles, Michigan**

**IN THE COUNTY OF  
Berrien**

**STATE REGISTRATION NUMBER  
B9043**

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:

**February 19, 2016**

DATE PERMIT TO INSTALL APPROVED:

**April 21, 2016**

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>Flexible Group ID</b>
EUTANK1	1,008,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	FGFUELTANKS
EUTANK2	2,310,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	FGFUELTANKS
EUTANK3	1,470,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	FGFUELTANKS
EUTANK4	1,470,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	FGFUELTANKS
EUTANK5	5,040,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	FGFUELTANKS
EUTANK10	10,584 gallon horizontal tank for storing gasoline additive	FGFACILITY
EUTANK11	6,006 gallon horizontal tank for storing gasoline additive	FGFACILITY
EUTANK12	1,000 gallon horizontal tank for storing premium diesel fuel additive	FGFACILITY
EUTANK13	1,000 gallon horizontal tank for storing premium diesel fuel additive	FGFACILITY
EUTANK14	8,000 gallon horizontal tank for storing lubricity additive for diesel fuel	FGFACILITY
EUTANK15	30,000 gallon fixed roof tank for ethanol	FGETHANOLTANKS
EUTANK16	30,000 gallon fixed roof tank for ethanol	FGETHANOLTANKS
EUTANK19	8,000 gallon horizontal tank for storing gasoline additive	FGFACILITY
EUTANK21	560 gallon underground knockout tank	FGFACILITY
EUTANK22	10,000 gallon underground petroleum contact water (PCW) tank	FGFACILITY
EUTANK23	10,000 gallon fixed roof petroleum contact water tank	FGFACILITY
EUTOTE18	550 gallon red dye storage tote	FGFACILITY
EULOADRACK	Three-bay, twelve-arm loading rack with vapor combustion unit	FGFACILITY

**The following conditions apply to: EULOADRACK**

**DESCRIPTION:** Three-bay, twelve-arm loading rack with vapor combustion unit

**Flexible Group ID:** FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** vapor combustion unit

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	30 mg per liter loaded	Test protocol*	EULOADRACK		R 336.1205
2. VOC	56.0 tpy	12-month rolling time period as determined at the end of each calendar month.	EULOADRACK	VI.3	R 336.1205 R 336.1609

\*Test protocol shall specify averaging time

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. gasoline	244,700,000 gallons	12-month rolling time period as determined at the end of each calendar month	EULOADRACK	VI.2	R 336.1205
2. distillate fuel oil	82,200,000 gallons	12-month rolling time period as determined at the end of each calendar month	EULOADRACK	VI.2	R 336.1205 R 336.1225
3. ethanol	24,400,000 gallons	12-month rolling time period as determined at the end of each calendar month	EULOADRACK	VI.2	R 336.1205

**III. PROCESS/OPERATIONAL RESTRICTIONS**

- The permittee shall not load any organic compound through EULOADRACK unless all provisions of Rules 609 and 627 are met. **(R 336.1205, R 336.1225, R 336.1609, R 336.1627, R 336.1910)**

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

1. The permittee shall not operate EULOADRACK unless the vapor combustion unit is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes ensuring the presence of a flame in the vapor combustion unit during organic compound loading. **(R 336.1205, R 336.1225, R 336.1609, R 336.1627, R 336.1910)**

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

1. 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, in a satisfactory manner, the throughput of gasoline, distillate fuel oil, ethanol, additives, and dyes for EULOADRACK on a monthly and 12-month rolling time period basis. **(R 336.1205, R 336.1225)**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the throughput of gasoline, distillate fuel oil, and ethanol for EULOADRACK, as required by SC II.1, II.2, and II.3. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205, R 336.1225)**
3. The permittee shall calculate the VOC emission rate from EULOADRACK monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205)**

#### **VII. REPORTING**

1. NA

#### **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. EULOADRACK	96 <sup>1</sup>	35 <sup>1</sup>	R 336.1225

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

1. NA

#### **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>
FGFUELTANKS	Internal floating roof tanks for storing gasoline or distillate fuel oil.	EUTANK1, EUTANK2, EUTANK3, EUTANK4, EUTANK5
FGETHANOLTANKS	Fixed roof tanks for storing ethanol.	EUTANK15, EUTANK16
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	NA

**The following conditions apply to: FGFUEL TANKS**

**DESCRIPTION:** Internal floating roof tanks for storing gasoline or distillate fuel oil.

**Emission Units:** EUTANK1, EUTANK2, EUTANK3, EUTANK4, EUTANK5

**POLLUTION CONTROL EQUIPMENT:** Internal floating roof

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	26.6 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFUEL TANKS	VI.4	R 336.1205

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. gasoline	244,700,000 gallons	12-month rolling time period as determined at the end of each calendar month.	FGFUEL TANKS	VI.3	R 336.1205
2. distillate fuel oil	82,200,000 gallons	12-month rolling time period as determined at the end of each calendar month.	FGFUEL TANKS	VI.3	R 336.1205, R 336.1225

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUTANK1 unless all provisions of Rule 604 are met. **(R 336.1604, R 336.1910)**
2. The permittee shall not operate EUTANK2 unless all provisions of Rule 604 are met. **(R 336.1604, R 336.1910)**
3. The permittee shall not operate EUTANK5 unless all provisions of Rule 604 are met. **(R 336.1604, R 336.1910)**
4. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Kb, as they apply to EUTANK3 and EUTANK4. **(R 336.1702(b), 40 CFR Part 60 Subparts A & Kb)**

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

1. The permittee shall not operate any tank in FGFUEL TANKS unless the tank's internal floating roof is installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1910, R 336.1702(b), 40 CFR Part 60 Subparts A & Kb)**

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

1. 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, in a satisfactory manner, the gasoline and distillate fuel oil throughput for FGFUEL TANKS on a monthly and 12-month rolling time period basis. **(R 336.1205, R 336.1225)**
2. The permittee shall perform inspections and monitor operating information for EUTANK3 and EUTANK4 in accordance with the federal Standards of Performance for New Stationary sources as specified in 40 CFR Part 60 Subparts A and Kb. **(R 336.1702(b), 40 CFR Part 60 Subparts A & Kb)**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the gasoline and distillate fuel oil throughput for FGFUEL TANKS, as required by SC II.1 and II.2. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205, R 336.1225)**
4. The permittee shall calculate the VOC emission rate from FGFUEL TANKS monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205)**
5. The permittee shall keep records of inspections and operating information for EUTANK3 and EUTANK4 in accordance with the federal Standards of Performance for New Stationary sources as specified in 40 CFR Part 60 Subparts A and Kb. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(40 CFR Part 60 Subparts A & Kb)**

#### **VII. REPORTING**

1. NA

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

1. NA

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

1. NA

**The following conditions apply to: FGETHANOLTANKS**

**DESCRIPTION:** Fixed roof tanks for storing ethanol.

**Emission Units:** EUTANK15, EUTANK16

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	1.24 tpy	12-month rolling time period as determined at the end of each calendar month.	FGETHANOLTANKS	VI.2	R 336.1205

**II. MATERIAL LIMITS**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. ethanol	24,400,000 gallons	12-month rolling time period as determined at the end of each calendar month.	FGETHANOLTANKS	VI.1	R 336.1205

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. NA

**V. TESTING/SAMPLING**

1. 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, monthly and rolling 12-month time period records of the ethanol throughput for FGETHANOLTANKS, as required by SC II.1. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205)**
2. The permittee shall calculate the VOC emission rate from FGETHANOLTANKS monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205)**

**VII. REPORTING**

1. NA

**VIII. STACK/VENT RESTRICTIONS**

1. NA

**IX. OTHER REQUIREMENTS**

1. NA

**The following conditions apply Source-Wide to: FGFACILITY**

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	89 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	VI.1	R 336.1205
2. any individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	VI.1	R 336.1205
3. total HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	VI.1	R 336.1205

**II. MATERIAL LIMITS**

1. NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. NA

**V. TESTING/SAMPLING**

1. NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall calculate the VOC, individual HAP, and total HAPs emission rates from FGFACILITY monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep these records on file for a period of at least five years and make the records available to the Department upon request. **(R 336.1205)**

**VII. REPORTING**

1. NA

**VIII. STACK/VENT RESTRICTIONS**

1. NA

**IX. OTHER REQUIREMENTS**

1. NA