

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection**

B625870809

FACILITY: Citgo Petroleum Corp		SRN / ID: B6258
LOCATION: 524 THIRD ST, FERRYSBURG		DISTRICT: Grand Rapids
CITY: FERRYSBURG		COUNTY: OTTAWA
CONTACT: James La Porte , EH&S Manager		ACTIVITY DATE: 01/25/2024
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY '24 on-site inspection to determine the facility's compliance status with applicable air quality rules and regulations including PTI no. 201-03A.		
RESOLVED COMPLAINTS:		

On January 25, 2024, staff Chris Robinson (CR) and Laura Martin (LM) from Michigan’s Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) conducted an unannounced inspection of Citgo Petroleum Corporation - Ferrysburg Terminal (Citgo, SRN B6258) located at 524 Third Street in Ottawa County, Ferrysburg, Michigan. The purpose of this inspection was to determine this facility’s compliance with applicable state and federal air quality rules and regulations including Permit to Install (PTI) 201-03A which is a Title V opt-out permit limiting facility-wide emissions of Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs).

Prior to entry AQD staff surveyed the perimeter for odors and visible emissions, none were observed.

Upon entry CR and LM met Citgo’s Assistant Terminal Manager Craig Middleton. The intent of the visit was relayed, and identification provided. The PTI was first discussed which was followed by a walkthrough of the facility and then a brief post meeting. Per discussions with Craig there have been no changes since the last inspection. Records for January 1, 2023, through part of January 2024, were provided.

Facility Description

Citgo is a fuel distribution facility that obtains product via pipeline in cycles and other products such as ethanol, via tanker trucks. The terminal is a three (3) bay terminal, but only dispenses product out of two (2). The third bay is dedicated for receiving product.

Compliance Evaluation

Citgo operates under Permit to Install (PTI) No. 201-03A. The emission units covered in this PTI include the following:

Emission Unit ID	Emission Unit Description	Install/Mod Date
EU-RACK	2 lane terminal truck loading rack (2 lanes installed in 1958 and One installed in 1995).	1958/1995
EU-TANK1	2,310,000-gallon storage tank to store distillate (diesel fuel). Internal floating roof installed in 1982.	1958/1982
*EU-TANK2	1,470,000-gallon internal floating roof storage tank.	*1958
EU-TANK3	2,310,000-gallon internal floating roof storage tank.	1958
EU-TANK4	1,470,000-gallon internal floating roof storage tank.	1958
EU-TANK5	588,000-gallon gasoline/distillate internal floating roof storage tank.	Not Installed
EU-TANK11, EU-TANK12, & EU-TANK13	30,000-gallon fixed roof ethanol storage tanks.	NA

*This tank was converted to a fixed roof tank in May of 2023.

A) PTI No. 201-03A

EU-RACK:

During the 1/24/2024 inspection CR observed the loading rack (EU-RACK), Tanks (FG-IFRTANKS & FG-ETHANOL) and the Vapor Combustion Unit (VCU). A truck loading fuel was observed with proper connection to the VCU which was also operating as required per EURACK, SC IV.1. The system is designed so that if there is an issue with the VCU, the loading rack is disabled. The facility maintains a malfunction Abatement Plan (MAP) onsite as required by EURACK, SC III.3 and Rules 609 and 706. Spare parts are on hand as required by the MAP and they are properly tracking maintenance and repairs. As noted in the previous inspection and discussed with Mr. Laporte on 6/10/2020, the facility has vapor tight collection lines and trucks will not be filled unless they have the appropriate documentation demonstrating that they have the proper safeguards. Leak tests are done once per year for each delivery vessel.

EURACK, Special Condition IV.2 (Rules 609 and 706) prohibits the filling of any delivery vessel with an organic compound having a true vapor pressure greater than 1.5 psia, or any delivery vessel which had a previous load containing an organic compound with a vapor pressure of 1.5 psia unless the vapor balance system is installed, maintained, and operated in a satisfactory manner. This condition is referring to seasonal gasoline standards or what Citgo calls the RVP (Reid Vapor Pressure) Season. The facility checks vapor pressures during the RVP season and appears to be meeting requirements specified in IV.2.a-d consisting of vapor tight collection lines, closed hatches and the prevention of liquid drainage from transfer lines. Written procedures as required by SC IV.2 and Rule 609 are maintained onsite.

The VCU is subject to the Performance Standards for Bulk Gasoline Terminals promulgated in 40 CFR Part 60 Subpart XX which Citgo appears to be in compliance with. Daily checklists and monthly leak inspections are being maintained. This standard, as does EU-RACK, SC V.1, requires VOC emission rates verification to be conducted once every five (5) years. The most recent testing was conducted on June 15, 2023, and determined that the VCU emits VOCs at an average rate of 8.35 mg/liters of gasoline loaded, which is under the limit specified in SC I.4 of 10 mg/liter of gasoline loaded. EURACK gasoline emissions are also limited to 14.0 tpy per SC I.3. Based on records provided gasoline emissions were 5.30 tons. During testing the terminals vapor collection system components were monitored for leaks which included, all valves, flanges, fittings, seals, and check valves. No leaks were detected.

Pollutant (EURACK Emissions through VCU)	Limit (12-Month Rolling)	Calculated Tons Emitted (Feb - Dec. 2023)
Ethanol	2.0 tpy	0.12
Diesel	2.0 tpy	0.01
Gasoline	14.0 tpy	5.30
VOC	10 mg / liter of gasoline loaded (Hourly)	See VCU testing discussion above.

Material (loaded through EU-RACK)	Limit (Gallons/year)	Actual Gallons Loaded (Feb - Dec. 2023)
Ethanol	36,515,000	7,355,634
Gasoline	335,000,000	73,329,166
Diesel	662,256,000	12,779,786

Based on the records provided, EURACK appears to be in compliance with the provisions of Rules 609, 627, and 706 as well as NSPS XX. The facility completes daily checklists that fulfill many of these requirements.

FG-IFRTANKS:

This flex group consists of tanks 1-5. Tank 5 has not been constructed and per discussions, it is unlikely that Citgo will be moving forward with it. CR informed Craig that the 18-month construction window (General Condition No. 2) expired in February of 2021. Therefore, if Citgo decides to move forward with adding Tank 5, the PTI would need to be re-evaluated prior to construction. Per discussions, the existing tanks are equipped with the deck and seal configurations as specified in FG-IRTANKS, SC IV.1.a-d and IV.2.a. of the PTI. Tanks 1-4 are subject to a VOC emission limit of 18.44 tpy (FG-IFRTANKS SC I.1) and based on the records VOC emissions were 11.57 tons.

FG-IFRTANKS is also subject to a throughput limit of 335,000,000 gallons of gasoline and 662,256,000 gallons of distillate (both per a 12-month rolling period). Gasoline throughput, as noted in the table above was approximately 73,329,166 gallons and the distillate throughput was 12,779,786 gallons. Both are well under the limit. Based on the information provided, Citgo appears to be in compliance with the requirements of 40 CR Part 60 Subpart Kb as they apply to EU-TANK1.

In May 2023 the facility converted Tank 2 from a floating roof tank to a fixed roof tank. The facility's consultant reached out to AQD to get approval to use exemption Rule 284(2)(d). CR informed them that AQD does not provide approvals for exemptions and that the onus is on the facility if they choose to use one. This was discussed with Craig onsite during the inspection and later by phone with James Laporte, but both were unsure of whether or not an exemption had been used or could be used so a PTI was submitted to be sure. The PTI application, received on January 30, 2024, requested the removal of Tank 2 from the PTI since the facility was using exemption Rule 284(2)(d). After evaluating the request further and discussing with AQD's Permits Section it was decided that Tank 2 could not be removed from the PTI without substantial rework of the PTI because Tanks 2-4 were considered "grandfathered" from permitting but only included in the PTI to limit facility wide emissions. Therefore, these tanks are in the permit but did not go through NSR permitting. If changing the tanks roof tripped a "reconstruction" it would no longer be considered "grandfathered" and would need to be exempt or permitted. CR discussed this with James Laporte on 2/20/24 and since the fixed roof was existing and only the floating roof was removed the changes did not appear to trip a reconstruction. Although an acceptable exemption may be available the use of it would change Tank 2's status from grandfathered to Rule 201 subject. James decided to leave Tank 2 in the permit but revise the Emission unit Summary table to show that Tank 2 now has a fixed roof.

FG-ETHANOL:

This emission unit consists of three (3) 30,000-gallon fixed roof ethanol storage tanks (EU-TANK11-13) which is subject to an ethanol emission limit of 9 tpy and a throughput limit of 36,515,000 both based on a 12-month rolling time period. VOC emissions were approximately 1.32 tons, and the

material throughput was 8,000,976 gallons. The facility appears to be operating well under the limits.

Emission and throughput records were provided while the maintenance and inspection records were reviewed onsite.

FGFACILITY:

consists of source-wide emission and material limits which the facility has taken to opt out of Title V. Compliance is demonstrated through facility-wide emission limits and throughputs.

Pollutant	Limit (12-month Rolling)	Calculated Tons Emitted (Jan. – Dec. 2023)
VOC	75 tpy	19.45
Individual HAP	Less than 9 tpy	0.10 for 2,2,4 - Trimethylpentane (MAX HAP Emitted)
Total HAPs	Less than 22.5 tpy	0.40

Based on the records provided Citgo appears to be operating within the limits specified in FG-ETHANOL SC I.1-3 and II.1 of the permit. Throughput and emission records are being maintained as required in FGETHANOL SC VI.1 & 2 of the permit. Based on this information, which is summarized above, the facility appears to be operating within the limits established in the permit.

Based on the information provided, Citgo appears to be in compliance with the requirements of 40 CR Part 60 Subpart Kb as they apply to EU-TANK11, EU-TANK12, and EU-TANK13.

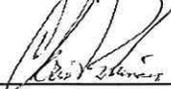
B) Annual Emissions Reporting

Emissions data for 2023 was received on time on February 5, 2024, and reviewed by the AQD on February 13, 2024. No changes were made to the submittal.

Pollutant	Amount (Tons)
VOC	19.45

Conclusion

Citgo appears to be in compliance with applicable air quality rules and regulations which include the requirements specified in PTI No. 201-03A.

NAME 

DATE 2/22/2024

SUPERVISOR 