

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B904332987

FACILITY: CITGO PETROLEUM CORP		SRN / ID: B9043
LOCATION: 2233 S 3RD ST, NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: Rich Green , Terminal Manager		ACTIVITY DATE: 01/14/2016
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On January 14, 2016 AQD staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the Citgo Petroleum facility located in Niles, Berrien County. Citgo Petroleum is a synthetic minor (Opt-Out) source and their current operations are covered under PTI No. 42-05A. The facility is also subject to 40 CFR Part 63 Subpart BBBBBB (NESHAP for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities at area sources) which took effect in 2008. During the previous inspection, staff made a compliance determination to this regulation but later learned that the AQD is not delegated to enforce this regulation anyway. The purpose of the inspection was to determine the facilities compliance with PTI No. 42-05A and any other applicable state and/or federal air regulations that the AQD is delegated to enforce. Staff will not be making a compliance determination to the NESHAP Subpart BBBBBBB. Staff departed for the facility at approximately 9:25 a.m.

Staff arrived at the facility at approximately 10:45 a.m. The facility is entirely fenced and has a gated entry where visitors have to use a call box to introduce themselves prior to entering. Staff did this and was allowed to proceed to the office area once the gate opened. Upon entering the office area, staff was greeted by Rich Green. Staff has met with Rich on previous inspections and staff gave him a copy of the DEQ "Environmental Inspection Brochure". Rich then asked what staff needed to see and staff responded that they would need to see the records required to be kept by the permit, view loading operations, and then look at their control device (vapor combustion unit which is an enclosed flare). Rich said that sounded good but to bear with him because things were pretty chaotic at the moment and he had a lot of things going on. Rich mentioned he had several people on site working on things because they had a power outage Tuesday morning that messed with some of their computer automated systems (mainly the additive injection systems). Apparently, the power outage was caused by three people in a stolen car crashing into a power pole north of the facility. Staff told Rich that was fine and that he would work around what Rich needed to get done.

Prior to looking at records, staff asked Rich to look over the emission unit table in the permit to make sure it's still all the same equipment. Rich did this and mentioned that Tank #3 and Tank #4 are strictly for storage of distillate fuel oil now (NOTE: That had also been noted during the previous inspection in 2012). Rich continued his review and noted that tanks #15 and #16 should be described as 30,000 gallon tanks and not 39,980. Rich also noted that Tank #22 is no longer an oil/water separator tank and they now refer to it as a Petroleum Contact Water (PCW) Holding Tank. It is a 10,000 gallon UST that is now tied in with Tank #23 which is a 10,000 gallon PCW AST. These tanks hold any water that runs-off from the loading rack area and together they give them a 20,000 gallon storage capacity should they need it. Rich went on to mention that the emission unit table doesn't list Tank #14 and Tank #19 which also had been noted during the previous inspection in 2012. As mentioned in that inspection report, tank #14 was added in 2005 and tank #19 in 2008. They are both 8,000 gallons and #14 stores a lubricity additive for diesel fuel and #19 stores a BP gasoline additive. Back in 2012, Staff had asked for a copy of their MSDS sheets for both products to see if they met the requirements of the AQD permit exemption Rule 284(i). Rule 284(i) allows for "Storage or transfer operations of volatile organic compounds or non-carcinogenic liquids in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the actual storage conditions". After researching, staff was able to determine that both tanks and their content met the exemption. The MSDS sheets indicated that both products are VOCs and listed the vapor pressure of both in mmHg. When converted to psia they are both well under 1.5 psia exemption requirement. Of course all AQD exemptions require that the increase in actual emissions cannot exceed the significance levels as defined in Rule 336.1119 which wasn't an issue in this case. Lastly, Rich mentioned that the emission unit identified as EUTOTE (They call it tank #18) is now a 550 gallon red dye storage tank and not a 470 gallon one. After the emission unit review was done, Staff mentioned to Rich that they may want to have their environmental person submit a PTI application to modify their permit. The modification could include adding the new emission units that are not listed and to amend the emission unit descriptions that aren't correct. Rich said he would have it looked into. Staff then began a records review and the following lists the special conditions of PTI No. 42-05A and the facilities compliance status with them.

NOTE: Staff will put what specific product is stored in tanks 1 through 5 under their respective emission unit IDs. Rich mentioned that any tanks storing Sub-Octane fuels can't be sold as is and are mixed with Ethanol to raise their Octane rating. Example, Sub-Octane Regular is 85 Octane but when mixed with Ethanol makes it 87. Sub-Octane Premium is 91 Octane but when mixed with Ethanol makes it 93.

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EUTANK1 Premium Gas	1,008,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	NA
EUTANK2 Regular Gas	2,310,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	NA
EUTANK3 U.L.S. Diesel	1,470,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	NA
EUTANK4 U.L.S. Diesel	1,470,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	NA
EUTANK5 Sub-Octane Gas	5,040,000 gallon internal floating roof tank for storing gasoline or distillate fuel oil	NA
EUTANK10	10,584 gallon horizontal tank for storing gasoline additive	NA
EUTANK11	6,006 gallon horizontal tank for storing gasoline additive	NA
EUTANK12	1,000 gallon horizontal tank for storing premium diesel fuel additive	NA
EUTANK13	1,000 gallon horizontal tank for storing premium diesel fuel additive	NA
EUTANK15	39,890 gallon fixed roof tank for ethanol	NA
EUTANK16	39,890 gallon fixed roof tank for ethanol	NA
EUTANK21	560 gallon underground knockout tank	NA
EUTANK22	10,000 gallon underground oil/water separator tank	NA
EUTANK23	10,000 gallon fixed roof petroleum contact water tank	NA
EUTOTE	470 gallon red dye storage tote	NA
EULOADRACK	Three-bay, twelve-arm loading rack with vapor combustion unit	SVLOADRACK
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 Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGFUELTANKS	EUTANK1, EUTANK2, EUTANK3, EUTANK4, and EUTANK5.	NA
FGETHANOLTANKS	EUTANK15, EUTANK16, and any ethanol tanks installed under/through an exemption from the Permit to Install requirement.	NA
FGFACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	SVLOADRACK

The following conditions apply to: EULOADRACK

NOTE: SEE ATTACHMENTS FOR THE RECORDS REQUIRED TO BE KEPT BY THE VARIOUS SPECIAL

CONDITIONS. ALSO, TANKS #3 AND #4 ARE FLOATED TOGETHER AS ONE AND THEY SUPPLY THE LOADRACK THROUGH ONE COMMON LINE. THEREFORE THE THROUGHPUT AND EMISSIONS REPORTED ARE SPLIT BETWEEN THE TWO. TANKS #15 AND #16 ARE SET UP THE SAME WAY.

1.1a The VOC emission limits from the vapor combustion unit cannot exceed 30 mg per liter loaded.

AQD Comment: Appears to be in Compliance. The facility tested the unit in October of 2007 and the results indicated emissions at 10.8 mg/l.

1.1b The VOC emissions cannot exceed 56.0 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate emissions at 17.9 tons.

1.2a Gasoline throughputs cannot exceed 244,700,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate gasoline throughputs at 77,680,330 gallons.

1.2b Distillate fuel oil throughputs cannot exceed 82,200,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate distillate fuel oil throughputs at 38,535,706 gallons.

1.2c Ethanol throughputs cannot exceed 24,400,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate ethanol throughputs at 8,913,728 gallons.

1.3 The permittee shall not load any organic compound through EULOADRACK unless all provisions of Rules 609 and 627 are met.

AQD Comment: Appears to be in Compliance. The facility appears to be complying with the provisions of Rule 609 and 627.

1.4 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.

AQD Comment: Appears to be in Compliance. The facility had the pilot on the VCU in manual that day due to the extremely cold weather during the previous days. Rich said that during extremely cold weather, sometimes the pilot won't operate automatically.

1.5 By no later than 180 days after issuance of this Air Use Permit to Install, verification of VOC emission rates from EULOADRACK, by testing at owner's expense, in accordance with Department requirements, will be required. No less than 30 days prior to testing, a complete 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 a complete report of the test results to the AQD within 60 days following the last date of the test.

AQD Comment: Appears to be in Compliance. The facility tested their VCU in October of 2007 within the 180 day timeframe.

1.6 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 rolling 12-month time period basis.

AQD Comment: Appears to be in Compliance. The facility is doing this.

1.7 The permittee shall keep, in a satisfactory manner, monthly and rolling 12-month time period records of the throughput of gasoline, distillate fuel oil, and ethanol for EULOADRACK, as required by SC 1.6. 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.

AQD Comment: Appears to be in Compliance. The facility is doing this.

1.8 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.

AQD Comment: Appears to be in Compliance. The facility is doing this.

1.9 The VCU stack shall not exceed 96 inches in diameter and have a minimum height of 35 feet above ground level.

AQD Comment: Appears to be in Compliance. The VCU, which is an enclosed flare, appears to meet these requirements.

The following conditions apply to: FGFUEL TANKS (Tanks 1 thru 5)

NOTE: As mentioned previously, tanks #3 and #4 are strictly for distillate fuel storage now.

2.1 The VOC emissions shall not exceed 26.6 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. The records reviewed by staff for the period of January 2015 through December 2015 indicate emissions at 10.9 tons.

2.2a The gasoline throughput cannot exceed 244,700,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate gasoline and diesel throughputs through these tanks at 222,637,156 gallons.

2.2b The distillate fuel oil throughput cannot exceed 82,200,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate distillate fuel oil throughputs at 69,076,140 gallons. Staff totaled the amount for tanks #3 and #4 which are the only ones used for distillate storage.

2.3, 2.4, and 2.5 The permittee shall not operate Tanks 1, 2, and 5 unless all provisions of Rule 604 are met.

AQD Comment: Appears to be in Compliance. The facility appears to be complying with Rule 604.

2.6 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this. They are also conducting quarterly inspections of all roofs, gaskets, seals, etc.

2.7 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this requirement and they are conducting inspections of them on a quarterly basis.

3.2 The permittee shall monitor, in a satisfactory manner, the gasoline and distillate fuel oil throughput for FGFUEL TANKS on a monthly and rolling 12-month time period basis.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

2.8 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this and keeping records of their inspections on all the components.

3.3 The permittee shall keep, in a satisfactory manner, monthly and rolling 12-month time period records of the gasoline and distillate fuel oil throughput for FGFUELTANKS, as required by SC 2.8. 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

2.11 The permittee shall calculate the VOC emission rate from FGFUELTANKS 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

2.12 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

The following conditions apply to: FGETHANOLTANKS

3.1 The VOC emissions from the ethanol tanks shall not exceed 1.24 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate emissions at 1.20 tons.

3.4 The ethanol throughput in the tanks cannot exceed 24,400,000 gallons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate throughputs at 8,913,736 gallons.

3.5 The permittee shall monitor, in a satisfactory manner, the ethanol throughput for FGETHANOLTANKS on a monthly and rolling 12-month time period basis.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

3.6 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 3.3. 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

3.7 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this.

The following conditions apply to: FGFACILITY

4.1a The VOC emissions from FGFACILITY cannot exceed 89 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate emissions at 30.1 tons.

4.1b The emissions for any individual HAP from FGFACILITY cannot exceed 8.9 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate the highest individual HAPs emitted were Toluene and Xylene at 0.3 tons each.

4.1c The total HAP emissions from FGFACILITY cannot exceed 22.4 tons per year based on a 12 month rolling time period.

AQD Comment: Appears to be in Compliance. Records reviewed by staff for the period of January 2015 through December 2015 indicate total HAP emissions at 1.2 tons.

4.2 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.

AQD Comment: Appears to be in Compliance. The facility is complying with this requirement.

After reviewing records in the office, staff went with Rich to look at the vapor combustion unit (enclosed flare). The flare was manufactured by John Zink. It has an operating temperature set-point of 1200 degrees F but it was slowly on the decline since a couple of trucks had just finished loading. Staff then looked at the loading racks. Rich said Bay #1 is mainly for diesel loading, Bay #2 is mainly gasoline but some diesel, Bay #3 is all gasoline, and what Rich called the E-Bay is for the off-loading of Ethanol and Bio-Diesel. Rich said that the E-Bay is used for Bio-Diesel from approximately April through September/October and is used for Ethanol year round. Staff noted that aside from snow and slush, the loading racks appeared pretty clean. Staff then proceeded with Rich back to the office where staff thanked him for his time. Staff mentioned that everything appeared to be in Compliance and Staff departed the facility at approximately 12:55 p.m.

INSPECTION CONCLUSION: The facility appears to be in COMPLIANCE with the terms and conditions of its opt-out permit PTI No. 42-05A and NSPS Subpart Kb. As mentioned in the opening paragraph, staff did not make a compliance determination in regards to the NESHAP Subpart BBBBBB since the AQD isn't delegated to enforce it.

NAME Math Dahn

DATE 1-20-16

SUPERVISOR MD 1/20/2016