

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

B711046933

FACILITY: MPLX Terminals LLC - Flint Light Products Terminal	SRN / ID: B7110
LOCATION: 6065 N DORT HWY, MOUNT MORRIS	DISTRICT: Lansing
CITY: MOUNT MORRIS	COUNTY: GENESEE
CONTACT: Victor Brzeg , Env. Professional	ACTIVITY DATE: 10/24/2018
STAFF: Julie Brunner	COMPLIANCE STATUS: Compliance
SUBJECT: Scheduled Compliance Inspection as part of FCE - PTI 223-06A	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

On October 24, 2018, I conducted a scheduled inspection of MPLX Terminals LLC – Flint Light Products Terminal (B7110) located at 6065 N. Dort Hwy in Mount Morris. The last inspection of the facility was on October 6, 2016.

Arrived: 9:45 am

Departed: 12:20 pm

Weather: 35°F, wind WNW@7 MPH, partly cloudy

Contacts:

Mr. Victor Brzeg, Env. Professional, 313-297-4724, vibrzeg@marathonpetroleum.com

Facility Description and Regulatory Overview:

This facility is a bulk petroleum and ethanol terminal. The petroleum liquid comes in via pipeline, and ethanol is delivered via tanker truck. The liquids are stored in either internal floating roof storage tanks or fixed roof storage tanks. Products are formulated (ethanol, additives added) and loaded into tanker trucks for delivery to customers. The loading of tanker trucks is in a covered bay with a vapor control system.

The facility is located in Mount Morris, northeast of Flint in a mainly commercial and industrial area. There is a mobile home park northeast of the terminal.

The facility is considered a synthetic minor for emissions of volatile organic compounds (VOC) with opt-out limits of less than 90.0 tpy, and hazardous air pollutants (HAPs) with opt-out limits of less than 9.0 tpy of any individual HAP, and 22.5 tpy of aggregate HAPs. The facility has opted out of the Title V - Renewable Operating Permit (ROP) Program and any applicable federal standards with the permitted restrictions on emissions of VOC and HAPs. The terminal has one active Permit to Install (PTI) No. 223-06A. This PTI was issued April 12, 2017 and added a 30-day notification requirement for when the portable combustion unit (back-up) will be on-site and used. Also, the monitoring was updated for the continuous emission monitoring system (CEMS) on EULOADRACK.

Permitted Emission Units (EU) and Flexible Groups (FG) -

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Regulations
EULOADRACK	Two bay loading rack with a carbon adsorption vapor recovery unit (VRU) as primary control and a portable vapor combustion unit (VCU) as back-up control.	Rule 205, Rule 609, Rule 627, Rule 702(a), 40 CFR 60 – Subpart XX
EUT120-7 / FGIFRTANKS	120,000 barrel (approximately 5,040,000 gallons) internal	Rule 604, Rule 702(a),

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Regulations
	floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in September 1994.	40 CFR 60 – Subpart Kb
EUT30-13 / FGIFRTANKS	25,177 barrel (approximately 1,057,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1979.	Rule 604, Rule 702(a), 40 CFR 60 – Subpart Ka
EUT20-1 / FGIFRTANKS	20,927 barrel (approximately 879,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1974.	Rule 604, Rule 702(a), 40 CFR 60 – Subpart K
EUT25-12 / FGIFRTANKS	21,100 barrel (approximately 886,000 gallons) internal floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in 1979.	Rule 604, Rule 702(a), 40 CFR 60 – Subpart Ka
EUT-3 / FGIFRTANKS	2,000 barrel (approximately 84,000 gallons) internal floating roof storage tank for storing transmix. The tank was built in 1992 (or 1994 according to the tag on the tank).	Rule 604, Rule 702(a), 40 CFR 60 – Subpart Kb
EUT20-2 / FGFIXEDROOFTANKS	20,000 barrel (approximately 840,000 gallons) fixed roof storage tank for storing distillate. The tank was built in 1977.	Rule 702(a), 40 CFR 60 – Subpart K
EURA-17-1 / FGFIXEDROOFTANKS	16,000 gallon fixed roof storage tank for storing distillate.	Rule 702(a)
EUO-30-1 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)
EUO-30-2 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)
EUO-30-3 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)
EUO-30-4 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)
EUO-30-5 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Regulations
EUO-30-6 / FGFIXEDROOFTANKS	29,400 gallon fixed roof storage tank for storing ethanol.	Rule 702(a)
EUAA-1-3 / FGFIXEDROOFTANKS	350 gallon additive tank.	Rule 702(a)
EUAA-8-2 / FGFIXEDROOFTANKS	8,000 gallon additive tank.	Rule 702(a)
EUAA-10-1 / FGFIXEDROOFTANKS	10,000 gallon additive tank.	Rule 702(a)
FGFACILITY	All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment.	40 CFR 63, Subpart BBBB

Applicable Federal Standards:

40 CFR 60, Subpart XX – Standards of Performance for Bulk Gasoline Terminals

40 CFR 60, Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978.

40 CFR 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984.

40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

40 CFR 63, Subpart BBBB – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (GDGACT). The terminal is subject as an Area Source.

Michigan Air Emissions Reporting System (MAERS):

The following VOC emissions were reported to MAERS for 2017:

- EU-LOADRACK – 6.17 tpy
- EUwater – 0.10 tpy
- RG Distillate – 0.14 tpy
- RG Gasoline – 8.79 tpy
- RGAdditive – 0.0935 tpy
- RGethanol – 2.35 tpy
- Total Facility VOC – 17.6 tpy

Inspection:

Upon arrival, I detected no odors around the facility. There were no visible emissions from the tanks or any exhaust stack vents.

I was met by Mr. Victor Brzeg. And, terminal personnel that included the Terminal Manager, Supervisor, and operators that all participated in the inspection that included a review of facility records, and a facility tour.

EULOADRACK – There are two bays for petroleum loading which are connected to a carbon adsorption vapor recovery unit (VRU). The VRU absorbs organic vapors emitted from the bottom of the tank during truck loading. The process consists of two (2) carbon beds which continually cycle and regenerate every 15 minutes. The organic vapors are desorbed from the carbon, condensed, and reabsorbed into the process. Carbon is changed out in the system about every 5 to 7 years.

A VOC CEMS is used to monitor the performance of the VRU. The CEMS was installed in the 4th quarter of 2015. A RATA of the VOC CEMS was performed on October 18, 2018. Test protocol approval was sent on October 5, 2018. No AQD staff were available to observe the RATA. Marathon has in-house testing crews and according to Victor, there were no issues identified during the RATA. The results of the RATA will be submitted within 60 days of the test. The CEMS is operated in compliance with Special Condition (SC) VI.2.

EU	Notes	Inspection Observations	CEMS Readout*
EULOADRACK	There is a two bay loading rack with a carbon adsorption vapor recovery unit as primary control for loading of tanker trucks. A third bay off-loads ethanol to facility tanks for blending with the petroleum product. This system is closed as emissions go to the tank farm.	Spill protection, drains, and the oil/water separator system is in the bay area. Faint odor, little evidence of spills or leaks.	NMHC – 0.0 ppm CH ₄ – 0.05 ppm THC – 0.01 ppm

* There were no trucks loading at the time of the reading. A copy of the CEMS drift sheet for the day was obtained.

Also, on PTI 223-06A are notification requirements (SC VII.1) for a portable vapor combustion unit as back-up control during periods of maintenance. The back-up unit is not kept on-site. No notifications for the unit have been submitted since the last inspection. The portable combustion unit is an enclosed flare called a RANE unit. The RANE is in the MAP. Marathon actually has two (2) portable enclosed flares (RANE) and two (2) open flares. Only a RANE can be used for back-up control based on the permit conditions.

Tank truck vapor tightness documentation is required before a tanker truck can be loaded. Copies of "Gasoline Tank Truck Pressure/Vacuum Test Results" were obtained for tanker trucks from Parson Oil Company, CMS Oil Co., Marathon Flint Oil Co., Brenner Oil Co., and Fick & Son's Inc. showing no leaks. Compliance with SC VI.6 was demonstrated.

In the bays, the vapor collection lines are denoted by yellow lines, the blue lines are product transport lines and the red lines are the fire suppression system. The interlocking system and vapor tight collection lines are computer monitored to prevent leaks and spills.

A trench drain in the bays collects any drips which go to an oil/water separator. The petroleum products separated go to a transmix tank and the water goes to the storm water drain.

For the MAP required by Special Condition (SC) III.4, the last changes to the plan were made on March 27, 2013 and no substantive changes have been made since then. The last hard copy of the plan sent to the AQD was on July 20, 2014. A new electronic system for all plans will be live at the end of the month. All documents/plans will be controlled under this system. The maintenance system for the facility is all electronic (work orders generated, records maintained). Copies of the "Monthly 'Gasoline Service Equipment' Emission/Leak Detection & Repair Log" for 2016, 2017, and 2018 were obtained showing compliance with SC VI.5 and Rule 911, 40 CFR 60 Subpart XX, and 40 CFR 63

Subpart BBBB. The logs show if leaks were detected and the repair such as hose replacements and loading coupler on an arm in 2016, and hose replacements in 2017 and 2018.

No compliance issues were observed during the inspection of EULOADRACK. The vapor collection system and liquid filling equipment were all competent. This process appears to be in compliance with the requirements of Rule 609, Rule 627, and 40 CFR 60, Subpart XX.

Tanks:

All tanks have cathodic protection against corrosion. No fire suppression system. Every floating roof tank got a new cable system (called strapping) in 2013/2014 due to a regulation change of 95% to 90% limit on tank volume.

Tank inspections and monitoring are on a schedule which is tracked electronically. The last external inspection of all tanks was done in April 2016 (5-year schedule), and cleaning and painting of tanks is done about every 5 years. Internal tank inspections per API 653 (653) are performed on a schedule depending on the tank. No 653 has been done on any tank since the last inspection, as well as no tank repairs, change in , or leaks or spills. A listing of the seal inspection required every 10 years for the tanks in FGIFRTANKS called the R.E.D. (Reliability Enterprise Data) report was obtained for EUT120-7, EUT30-13, EUT20-1, EUT25-12, and EUT-3. It shows when the tank seal was last inspected and the due date for the next inspection as required by 40 CFR 60, Subpart Kb. A copy of the complete "Tank Roof, Deck, Seal Information and Comprehensive Inspection Form" for EUT25-12 was obtained which was the last tank that underwent a 653 and repair in August 2015. There is some debate on whether the tank has to be out of service to do the 10-year inspection. The 10-year inspections are being done while the tank is in service which the company claims meets the intent of the regulation. (This interpretation is still being discussed and investigated.) Every 20 years an internal visual tank inspection is done where the tank is taken out of service. Quarterly, an internal floating roof visual inspection is done through the tank hatch by facility staff. Below is a summary of tank observations.

EU	Notes	Inspection Observations
EUT120-7*	Storing gasoline, vapor recovery return line from VRU goes to the tank, strapped 8/6/13. 653 (tank integrity inspection method) April to August 2013.	No vapors or evidence of leaks
EUT30-13	Storing diesel, strapped 8/6/14. 653 and repair 2006	No vapors or evidence of leaks
EUT20-1	Storing diesel, strapped 8/25/14. 653 and repair 2014	No vapors or evidence of leaks
EUT25-12	Storing diesel, transmix or gasoline, strapped 3/6/14. 653 and repair 8/2015	No vapors or evidence of leaks
EUT-3	Storing premium gasoline, strapped 12/12/13. Internal/seal inspection 653? 10/2013.	No vapors or evidence of leaks
EUT20-2	Storing kerosene, strapped 3/6/14. 653 and repair 2006	No vapors or evidence of leaks
EU-17-1	Fixed roof storage tank storing diesel for company truck fueling.	Not on pipeline. The tank is refilled from tanker truck.
EUO-30-1	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUO-30-2		

EU	Notes	Inspection Observations
	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUO-30-3	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUO-30-4	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUO-30-5	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUO-30-6	Fixed roof storage tank for storing ethanol with common manifold.	No vapors or evidence of leaks
EUAA-1-3	Red dye additive tank for off-road diesel located by the ethanol truck unloading bay.	Replacing the tank soon
EUAA-8-2	Diesel additive tank storing HiTEC.	No vapors or evidence of leaks
EUAA-10-1	Gasoline additive tank.	No vapors or evidence of leaks

* Also, the portable combustion unit which is an enclosed flare called a RANE unit was last on-site from April to August 2013 for the 653 on Tank 120-7. The vapor recovery line for the VRU goes to this tank and temporary control was needed during the 653.

No compliance issues were observed during the inspection of the tanks in FGIFRTANKS and FGFIXEDROOFTANKS. Piping, seals, valves, covers and lids that could be observed were all competent. Records of inspections and monitoring are properly kept (copies of R.E.D. reports for the tanks obtained), and the throughput and the Reid vapor pressure of all tanks. The tanks appear to be in compliance with the requirements of Rule 604 and 40 CFR 60 - Subparts K, Ka, and Kb.

40 CFR 63, Subpart BBBB – The terminal became subject to GDGACT in January of 2011. The global requirement for this Area Source MACT is in PTI 223-06A. The state has not taken delegation for this regulation. The company sends the semi-annual compliance report and notification of compliance status directly to EPA Region 5 and copies the state as a courtesy. The last report received covered the 1st semi-annual of 2018 and noted that there had been no excess emission events nor any "malfunctions" during the reporting period.

Records Review:

Electronic records and calculations were viewed while on-site and copies obtained where noted above. The Rolling 12-Month Emissions & Throughput Summary records for 2016, 2017, and for 10/01/2017 to 9/30/2018 were obtained.

The throughput of petroleum and ethanol products loaded for the 12-month rolling at the end of September 2018 is as follows:

Gasoline + gasoline/ethanol – 129,849,678 gallons
 Diesel/distillate – 30,624,671 gallons
 Unblended ethanol – 0 gallons
 Total petroleum and ethanol loaded – 160,474,352 gallons

Throughputs for EULOADRACK are below the permit limits (SC II.1) of 240,000,000 gallons for gasoline + gasoline/ethanol, 75,000,000 gallons for diesel/distillate, and 25,000,000 gallons for unblended ethanol.

The VOC emissions for the 12-month rolling at the end of September 2018 from EULOADRACK were as follows:

VOC fugitive emissions – 4.4 tpy < 9 tpy (SC I.1)
VOC controlled emissions – 0.27 tpy < 60 tpy (SC I.2)

The VOC emissions for the 12-month rolling at the end of September 2018 from FGIFRTANKS were as follows:

VOC – 8.8 tpy < 17 tpy (SC I.1)

The VOC emissions for the 12-month rolling at the end of September 2018 from FGFIXEDROOFTANKS were as follows:

VOC – 2.5 tpy < 3 tpy (SC I.1)

For FGFACILITY, the emissions for the 12-month rolling at the end of September 2018 were as follows:

Individual HAP (hexane) – 0.24 tpy < 9.0 tpy (SC I.1)

Aggregate HAPS – 0.78 tpy < 22.5 tpy (SC I.2)

VOC – 17.3 tpy < 90.0 tpy (SC I.3)

All emissions are below the permit limits in PTI 223-06A.

An electronic copy of the records was later emailed, and a paper copy is attached to this inspection report.

Summary:

I briefly discussed my observations with the on-site staff before departing. The facility appeared to be in compliance with the applicable rules and regulations, and PTI 223-06A.

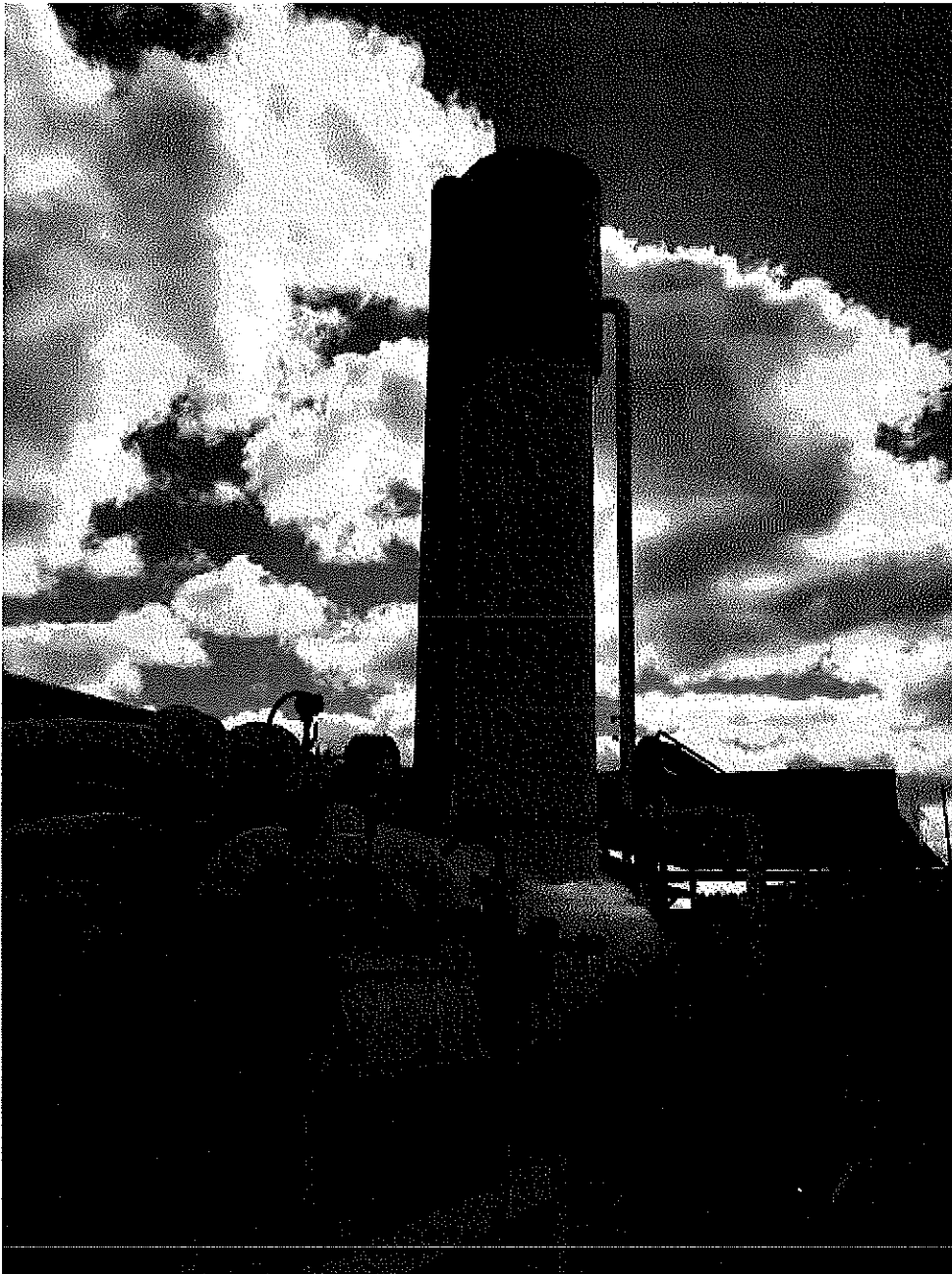


Image 1(4) : VRU condenser



Image 2(5) : VRU

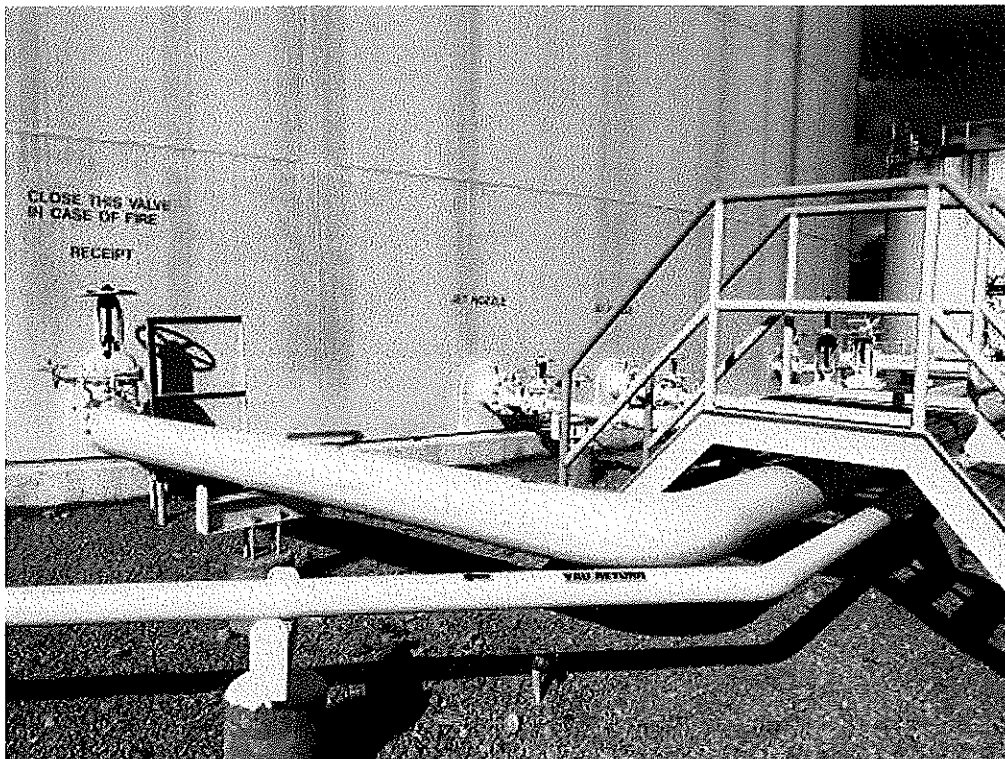


Image 3(1) : VRU return line to EUT120-7



Image 4(2) : Loadout Bay Lanes 1 & 2



Image 5(3) : Ethanol loading bay

NAME Julie L. Brown

DATE 11/14/18

SUPERVISOR B. M.

