

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT ^{8/26/2022} - On-Site Inspection

B711063847

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: Renee Hermiller, HES Professional	ACTIVITY DATE: 07/26/2022
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 July 26, 2022, 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 24, 2018. Safety gear consisting of a hard hat, safety glasses, steel toes, and FR clothing is necessary to inspect the facility operations.

Arrived: 9:13 am

Departed: 11:05 pm

Weather: 65°F, wind none/calm, UV Index 2 Low

Contacts:

Renee Hermiller, Env. Professional, 419-672-1211, rhermiller@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 floating roof storage tank for storing gasoline, distillate, or transmix. The tank was built in September 1994.	Rule 604, Rule 702(a), 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

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Regulations
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)
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.	Rule 205(3), 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 BBBBBB – 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 2021:

EUBUTANE – 0.00003 tpy

EU-LOADRACK – 5.61 tpy

EUwater – 0.08 tpy

RG Distillate – 0.15 tpy

RG Gasoline – 9.17 tpy

RGAdditive – 0.093 tpy

RGethanol – 2.30 tpy

Total Facility VOC – 17.4 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 Renee Hermiller and terminal personnel that included Chad (Terminal Manager, Supervisor), and Mike Belleville (Terminal Technician). All participated in the inspection that included a review of facility records, and a facility tour. Since my last scheduled inspection, there have been no changes in facility operations.

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. The carbon was last changed out in the system in 1997. Annual sampling of the carbon for absorption/desorption capacity is conducted. If it is demonstrated that the carbon is spent or exhausted, the carbon will be changed out.

A VOC CEMS (IR8400D, Serial No. 4381) is used to monitor the performance of the VRU. A copy of the VOC CEMS analyzer equipment information including model, range, span values, concentration ranges, PLC settings, and drift limits was obtained. A RATA of the VOC CEMS was performed on October 6, 2021 by a Marathon in-house testing crew. AQD staff were available to observe the RATA. There were no issues identified during the RATA and it met the 40 CFR 60, Subpart XX requirements. The results of the RATA were submitted within 60 days of the test. The next RATA is scheduled for October 5, 2022. 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 while loading ethanol, little evidence of spills or leaks.	NMHC – 0.03 ppm CH ₄ – 0.04 ppm THC – 0.01 ppm

* There were trucks loading ethanol at the time of the reading so the CEMS was not on. It will auto turn on every for 4 hours regardless of loading gasoline. A copy of the CEMS monthly drift report for July 1st to July 25th was obtained. Drift is checked daily as part of the requirement for a properly operating CEMS.

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 Atlas (6/15/2022), Alpena Oil Co. Inc. (3/14/2022), Advantage Tank Lines (11/16/2021), Bay Transportation (2/8/2022), and Cass City Oil and Gas Co. (5/9/2021) 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 updates to the plan were sent on July 20, 2014, and no substantive changes have been made since then. An electronic system for all documents/plans is used for control. 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 the 1st 6-months in 2022 and July 2022 were obtained showing compliance with SC VI.5 and Rule 911, 40 CFR 60 Subpart XX, and 40 CFR 63 Subpart BBBBBB. The logs show if leaks were detected and the repairs such as the vapor hose repair on 6/20/2022.

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, 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 at the last inspection for EUT120-7, EUT30-13, EUT20-1, EUT25-12, and EUT-3. It showed when the tank seal was last inspected and the due date for the next inspection as required by 40 CFR 60, Subpart Kb. Copies of the complete “Tank Roof, Deck, Seal Information and Comprehensive Inspection Form” for EUT25-12 (8/17/2015), EUT20-1 (7/22/14), EUT30-13 (3/26/2013), EUT120-7 (7/11/2013), and EUT-3 (10/10/2013) were obtained. 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 may have been addressed in modifications to Federal regulations.) 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 tags and inspection observations.

EU	Notes	Inspection Observations
EUT120-7*	Storing gasoline, vapor recovery return line from VRU goes to the	No vapors or evidence of leaks

EU	Notes	Inspection Observations
	tank, strapped 8/6/13. 653 (tank integrity inspection method) April to August 2013.	
EUT30-13	Storing ultra low sulfur diesel (ULSD), strapped, 653 and repair 8/6/14	No vapors or evidence of leaks
EUT20-1	Storing diesel, strapped, 653 and repair 7/21/14 & 7/22/14	No vapors or evidence of leaks
EUT25-12	Storing premium unleaded gasoline, strapped and internal/seal inspection 653, 10/6/2017.	No vapors or evidence of leaks
EUT-3	Storing transmix, strapped and internal/seal inspection 653, 10/6/2017.	No vapors or evidence of leaks
EUT20-2	Storing kerosene, strapped 3/6/14. 653 and repair 2006	No vapors or evidence of leaks
EURA-17-1	Fixed roof storage tank storing ULSD #2 truck refuel, inspection 653,10/6/2017	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	Fixed roof storage tank for storing ethanol with common manifold. inspection 653, 10/6/2017	No vapors or evidence of leaks
EUO-30-3	Fixed roof storage tank for storing ethanol with common manifold. inspection 653, 10/6/2017	No vapors or evidence of leaks
EUO-30-4	Fixed roof storage tank for storing ethanol with common manifold. inspection 653, 10/6/2017	No vapors or evidence of leaks
EUO-30-5	Fixed roof storage tank for storing ethanol with common manifold. inspection 653, 10/6/2017	No vapors or evidence of leaks

EU	Notes	Inspection Observations
EUO-30-6	Fixed roof storage tank for storing ethanol with common manifold. inspection 653, 10/6/2017	No vapors or evidence of leaks
EUA-1-3	Red dye additive tank for off-road diesel located by the ethanol truck unloading bay.	No observed
EUA-8-2	Diesel additive tank storing HiTEC® 4142M.	No vapors or evidence of leaks
EUA-10-1	Gasoline additive tank storing HiTEC® 6590M.	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. The next 653 on this tank will happen around 2026.

No compliance issues were observed during the inspection of the tanks in FGIFRTANKS and FGIFEDROOFTANKS. Piping, seals, valves, covers and lids that could be observed were all competent. Records of inspections and monitoring are properly kept, 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 was the 1st semi-annual of 2022 and it was noted that there had been no excess emission events nor any “malfunctions” during the reporting period.

Records Review:

Records and calculations were obtained where noted above and as summarized:

The throughput of petroleum and ethanol products loaded for the 12-month rolling at the end of June 2022 is as follows:

Gasoline – 125,349,201 gallons

Diesel/distillate – 38,474,551 gallons

Transmix – 1,074,539 gallons

Total petroleum loaded (controlled) – 164,898,291 gallons

Denatured ethanol (tank throughput) – 13,047,613 gallons

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

The VOC emissions for the 12-month rolling at the end of June 2022 from EULOADRACK were as follows:

VOC fugitive emissions – 4.30 tpy < 9 tpy (SC I.1)

VOC controlled emissions – 0.26 tpy < 60 tpy (SC I.2)

The VOC emissions for the 12-month rolling at the end of June 2022 from FGIFRTANKS are as follows:

VOC – 9.2 tpy < 17 tpy (SC I.1)

The VOC emissions for the 12-month rolling at the end of June 2022 from FGFIXEDROOFTANKS are as follows:

VOC – 2.5 tpy < 3 tpy (SC I.1)

For FGFACILITY, the emissions for the 12-month rolling at the end of June 2022 were as follows:

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

Aggregate HAPS – 0.80 tpy < 22.5 tpy (SC I.2)

VOC – 17.7 tpy < 90.0 tpy (SC I.3)

All emissions are below the permit limits in PTI 223-06A as reviewed for the period 7/1/2021 to 6/30/2022.

Electronic copies of the records were emailed, and records obtained were filed with the inspection report.

Summary:

The facility appeared to be in compliance with the applicable rules and regulations, and PTI 223-06A.



Image 1(IMG-0359) : VRU stack (picture is sideways)



Image 2(IMG 0367) : Tank yard with view of loading bays and VRU.

NAME *Julie L. Brunner*

DATE 8/26/2022

SUPERVISOR RB