

B9081
manila
Genesee

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

B908149931

FACILITY: Buckeye Terminals, LLC - Flint Terminal		SRN / ID: B9081
LOCATION: G-5340 N DORT HWY, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Kevin Schulte , Lead Terminal Operator		ACTIVITY DATE: 08/16/2019
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced, scheduled inspection of opt-out/synthetic minor source which was last inspected in 2015. This was conducted as a Partial Compliance Evaluation (PCE) activity, which was part of a Full Compliance Evaluation (FCE). Another PCE activity was also conducted; review of recordkeeping.		
RESOLVED COMPLAINTS:		

On 8/16/2019, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an unannounced, scheduled inspection of Buckeye Terminals, LLC - Flint Terminal. This was conducted as a Partial Compliance Evaluation (PCE) activity, which was part of a Full Compliance Evaluation (FCE). Another PCE activity was also conducted; review of recordkeeping.

Permitted emission units:

Emission unit* ID	MAERS EU	EU description	PTI No.	NSPS, if any	NESHAP BBBB subject	Status
EULOADRACK	EULOADRACK	Truck loading rack	138-05B	Yes, Subpart XX	No	Compliance
EU00001	EUTANK1	IFR, gasoline	138-05B	No	Yes	Compliance
EU00002	EUTANK2	IFR, gasoline	138-05B	No	Yes	Compliance
EU00004	EUTANK4	IFR, gasoline	138-05B	No	Yes	Compliance
EU00007	EUTANK10	IFR, gasoline	138-05B	No	Yes	Compliance
EU00010	EUTANK15	IFR, gasoline	138-05B	Yes, Subpart Kb (built 1995)	Yes	Compliance
Tank 11	EUTANK11	Diesel additive	903-91	No	No	Compliance

*An emission unit is any part of a stationary source which emits or has the potential to emit an air contaminant.

Exempt or grandfathered emission units:

MAERS EU	EU description	Contents	Exemption rule, or grandfathered	Status
EUTANK3	Cone roof, submerged fill	Distillate oil #2	Grandfathered (1959)	Compliance
EUTANK5	Horizontal, submerged fill	Transmix	Grandfathered (1959)	Compliance
EUTANK6	Horizontal, submerged fill	XOM Additive HiTEC 65016 Gasoline Additive	284(i)	Compliance
EUTANK7	Horizontal, submerged fill	Transmix	Grandfathered (1959)	Compliance
EUTANK8	Horizontal, submerged fill	CLS-1334 fuel additive	284(i)	Out of service
EUTANK9	Cone roof, submerged fill	Distillate oil #2	Grandfathered (1937)	Compliance
EEUTANK12	Horizontal, submerged fill	Generic gas additive MCC 0092	284(i)	Compliance
EUTANK13	Horizontal, submerged fill	BP Additive Invigorate-3	284(i)	Compliance
EUTANK14	Horizontal	Diesel additive: Adversity in summer, Adversity with Cold Flow in winter	284(i)	Compliance
EUTANK19	350 gal. steel tote at EULOADRACK	Red dye	284(2)(g)(i)	Compliance
EUTANK20	1,000 gal. additive tank	Diesel additive	284(2)(g)(i)	Compliance

Environmental contacts:

- Kevin W. Schulte, Lead Terminal Operator, 734-721-8834; kschulte@buckeye.com
- Kimberly J. Trostel, Sr. Specialist, Air Compliance; 419-993-8003; ktrostel@buckeye.com

Facility description:

Buckeye Terminal is by definition a "Bulk Gasoline Terminal". Several different fuel companies receive fuel from the terminal for distribution to various stations in the area. Gasoline and diesel are delivered through a pipeline into the facility from a refinery, stored in storage tanks, and recovered from storage through loading racks into delivery trucks.

Regulatory overview:

This facility has an opt-out or synthetic minor permit, Permit to Install (PTI) No. 138-05B, which limits its potential to emit (PTE) for volatile organic compounds (VOCs), and hazardous air pollutants (HAPs), to keep it from becoming a major source. VOCs are one of the *criteria pollutants*, that is, those pollutants for which a National Ambient Air Quality Standard (NAAQS) exists. Criteria pollutants also include carbon monoxide, nitrogen oxides, sulfur dioxide, lead, particulate matter smaller than 10 microns (PM-10) and particulate matter smaller than 2.5 microns (PM2.5). A facility is considered a *major source* if it has the PTE of 100 tons per year (TPY) or more of any one of the criteria pollutants. Because VOCs are the pollutant with the highest PTE here, the opt-out PTI sets restrictions to limit the PTE to levels below the major source threshold.

A facility is considered an area source, or minor source of HAPs, if it has a PTE of less than 10 TPY for single HAPs, and less than 25 TPY, for all HAPs combined. The opt-out PTI No. 138-05B limits this facility's PTE, to keep it from becoming a major HAPs source.

In addition to opt-out PTI No. 138-05B, there is a pre-existing PTI No. 903-91, for a 3,000 gallon additive storage tank, EUTANK11, owned by third party on Buckeye site.

There are some storage tanks onsite exempted by Rules 284(i) and 284(2)(g)(i), along with some tanks which are grandfathered from permitting, because of their installation dates.

The facility is subject to the following federal regulations:

- 40CFR60 Kb: *Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction, or Modification occurred after 7/23/84, for EUTANK15.*
- 40CFR63 BBBB: *Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, for EUTANK1, EUTANK2, EUTANK4, EUTANK10, and EUTANK15.* AQD does not have delegation of authority from the U.S. Environmental Protection Agency (EPA) for this area source Maximum Achievable Control Technology Standard (MACT).
- 40CFR60 XX: *Standards of Performance for Bulk Gasoline Terminals, for EULOADRACK.*

There are no solvent-based parts washers onsite, I was informed, so there are no cold cleaners or vapor degreasers here subject to Michigan Air Pollution Control Rules 611-614 or 707-710.

Fee status:

This facility is not classified as Category I fee-subject, because it is not a major source. It is, however, classified as category II fee-subject, because it has an emission unit subject to a New Source Performance Standard (EUTANK15, subject to 40 CFR Part 60, Subpart B). The facility reports to the Michigan Air Emissions Reporting System (MAERS) annually.

MAERS Reporting

NAICS 493110- General Warehousing and Storage
Fee Category- II
2014 Reporting Year Emissions- VOC 42314 lbs or 21.2 tons
MAERS Emission Units:

- EUFUGITIVES- fugitive sources at facility - valves, pumps, flanges, connectors, etc. Installed 1/1/1959
- EUGASFOLOAD- loading racks associated with distillate and gasoline loading of motor vehicle transport trucks. All racks are constructed for the submerged filling of transport trailers. Installed 1/1/1959
- EUTANK1- storage tank #1 - gasoline - 2.55 x 10.6 gal - 100' dia. Controlled by int. Floating roof w/primary seal and submerged filling. Installed 1/1/1959
- EUTANK2- storage tank #2 - gasoline - 0.75x 10 6 gal - 55' dia controlled by int. Floating roof w/primary seal and submerged filling. Installed 1/1/1959
- EUTANK3- storage tank #3 -distillate; 1.95x10 6 gal - 85' dia - cone roof distillate storage - controlled by submerged filling. Installed 1/1/1959
- EUTANK4- storage tank #4 - gasoline; - 1.89x10 6 gal - 85' dia - controlled by int. Floating roof w/primary seal and submerged filling. Installed 1/1/1959
- EUTANK5- storage tank #5 - transmixl - 30,000 gal horizontal 10' dia x 47' long controlled by submerged filling. Installed 1/1/1959
- EUTANK6- Mobil additive storage tank - 8,000 gal horizontal aboveground controlled w/submerged filling. Installed 1/1/1981
- EUTANK7- storage tank #7 - transmix - 25,000 gallons horizontal 11' dia x 38' long - controlled by submerged filling. Installed 1/1/1959
- EUTANK8- own-use diesel storage tank #8 - 8000 gal horizontal aboveground w/submerged filling; Still empty and out-of-service, as it was permanently closed in 2003. Installed 1/1/1981
- EUTANK9- storage tank #9 - diesel (distillate) storage - 0.958 x 10 6 gal 68' dia w/cone roof controlled by submerged filling. Installed 1/1/1937
- EUTANK10- storage tank #10 - ethanol - 0.35x 10 6 gal - 47' dia. Int. Floating roof w/primary seal and submerged filling. Installed 1/1/1939
- EUTANK11- storage tank #11 - diesel additive; 3,000-gall horizontal. Installed 1/1/1995
- EUTANK12- generic additive storage tank #12 - 8,000 gallon - horizontal w/submerged filling. Installed 10/1/1981
- EUTANK13- BP additive Invigorate storage tank #13 - 8,000 gallon horizontal above ground w/submerged filling. Installed 1/1/1981
- EUTANK14- Diesel additive Adversity (during summer) and Adversity with cold flow (during winter); 6,000-gallon horizontal above ground storage tank. Installed 1/1/1980
- EUTANK15- storage tank 15 - gasoline - 2.52 x 10 6 gallons - 105' dia controlled by int. Floating roof w/primary seal and submerged filling. Installed 1/1/1995
- EUTANK16- BP Amoco diesel plus additive; 2,000-gallon horizontal above ground storage tank (still empty/out-of-service, since 2005). Installed 1/1/1980
- EUTANK 19 added - 350 gallon steel tote for red dye, at EULOADRACK.
- EUTANK20 added - 1,000 gallon diesel additive tank.

Location:

The facility is located on N. Dort Highway in a heavily industrialized area for approx. 2 miles from I-475 exit 9, north to East Coldwater Road. The Buckeye Terminal is located in the northern portion of this industrial area. Residential areas are located just over ½ mile to the north, less than ½ mile to the west, ¾ mile to the south, and south-west, with sporadic homes to the east near CS Mott Lake.

Recent previous inspections:

- 12/14/2016: CEMS test observation: Nathan Hude, no concerns.
- 12/17/2015: Nathan Hude, exemption question resolved. Concerns over MAERS tank sizes vs. permit tank sizes were addressed. Concern over proper reference to PTI 138-05B in MAERS pointed out. Tanks grandfathered vs. exempt were sorted out.
- 7/28/14- Brian Culham, no concerns noted.
- 8/20/10- Brad Myott, no concerns noted.
- 7/17/08- Brad Myott, no concerns noted.

Recent violations:

None

Complaint history::

None are on record, as far back as 6/10/1987. The plant file prior to this date was sent to the State of Michigan Records Center, some time ago.

Safety apparel required:

Safety glasses with side shields are required. Fire retardant coveralls are required if a tank is opened for work, so AQD staff should bring coveralls, in case they are needed.

Arrival:

This was an unannounced inspection. At 9:40 AM, I checked for odors in the vicinity, prior to arrival. I drove north past the site on Dort Highway, then east on Genesee Road, south on Bray Road, and west on Carpenter Road. I did not detect any gasoline or diesel fuel odors, and I did not see any visible emissions from the Buckeye Terminal. Weather conditions were sunny and humid, and 68 degrees F, with winds out of the north northeast at 5-10 miles per hour.

I arrived at 9:48 AM. I pressed the button at the entrance gate, and the gate was subsequently opened. I met with Mr. Kevin Schulte, Lead Terminal Operator. He explained that the former Lead Terminal Operator, Mr. Don Padgett II, has returned to Field Operations. I also met operators Andy and Rich.

During the pre-inspection meeting, we reviewed the prior inspection report, for Nathan Hude's 12/17/2015 inspection, and his 12/14/2016 CEMS test observation activity report. Mr. Schulte called Ms. Kimberly Trostel, Sr. Specialist, Air Compliance, at their corporate offices, to make her aware of the inspection.

I asked if there have been any equipment changes since 2015. I was informed that EUTANK11 is no longer empty, but is storing a diesel additive, HiTec Fuel Additive 4693 MK. EUTANK20 has been added to the site, I was told. It is a 1,000 gallon stainless steel tote for diesel additive. Some of the fuel additives they store are different than what was stored during the 2015 inspection, I was told. Please see grandfathered and exempt emission unit table near the start of this report.

Inspection:**EUTANK11; PTI No. 903-91:**

Permit 903-91 was issued to Total Petroleum for a tank that is 3000 gallons in size. This permit was originally issued for storage of the following as "major chemical components": Polyolefin amine 9003-53-6, Xylene (HAP) 1330-20-7, Ethylbenzene (HAP) 100-41-4, and Isooctyl alcohol 26952-21-6. EUTANK11 is now storing HiTEC Fuel Additive 4693 MK, I was shown, as we walked through the site. There were no visible emissions or odors from the tank.

Based on EUTANK11's size and true vapor pressure (0.025 psi at 80°F per the permit app), AQD's Nathan Hude believed this tank is exempt from permitting per rule 284(i). It is at the discretion of Buckeye Terminals, LLC, whether they wish to void the permit in favor of using the exemption, or if they want to continue to operate under the permit. There are three Special Conditions (SC) in PTI No. 903-91, as follows:

PTI 903-91, Special Condition (SC) 14. VOC emissions shall not exceed 2 pounds per year.

INSPECTION RESULT: COMPLIANCE. 0.0989 emissions were reported to MAERS for 2018.

PTI 903-91, SC 15. Applicant shall not substitute materials which would cause appreciable change.

INSPECTION RESULT: COMPLIANCE. No materials are stored which are believed to cause appreciable change.

PTI 903-91, SC 16. There shall be no visible emissions from the tank.

INSPECTION RESULT: COMPLIANCE. No visible emissions were seen as we walked through the tank farm.

Overview of PTI No. 138-05B:

PTI No. 138-05B. B version was issued for the installation of the VRU, as the VCU was already covered under version A. The permit covers EULOADRACK, FGIFRTANKS (EU00001, EU00002, EU00004, EU00007, and EU00010), and has VOC and HAP opt-out limits under FGFACILITY, to keep the facility from becoming a major source.

This permit is less than ideal, as AQD's N. Hude had stated in his 2015 inspection report. The Emission Unit Summary Table is missing installation dates, it does not list stack dimensions for the Vapor Recovery Unit, it refers to rules (607, 627, 604) and regulations without details as per newer permits do, it excludes reference to 40CFR63 BBBB which was promulgated prior to the permit issuance, and has differences in tank sizes when compared to MAERS sizes listed.

The following is a comparison between the permit and MAERS for FGIFRTANKS:

<u>Permit EU</u>	<u>MAERS EU</u>	<u>Permit Size</u>	<u>MAERS Size</u>	<u>Difference</u>	<u>*Working</u>
EU00001	EUTANK1	2,769,784	2,550,000	-219,784	2,499,000
EU00002	EUTANK2	842,732	750,000	-92,732	756,000
EU00004	EUTANK4	1,909,798	1,890,000	-19,798	1,785,000
EU00007	EUTANK10	336,000	350,000	+14,000	336,000
EU00010	EUTANK15	2,571,339	2,520,000	-51,339	2,347,800

An email was sent by AQD's N. Hude on 1/25/16 to Buckeye's Ms. Lee Beck asking for the correct sizes. A response was received on 2/8/16 from Ms. Kimberly Trostel, these sizes are identified as the “*Working” column, above. Corrections to MAERS will be made as appropriate, N. Hude noted. Because the combined difference in these tanks are +336,200, so Buckeye is over reporting it's emissions, somewhat.

Please note that the 7/18/2019 Semi-Annual Compliance Report for 40 CFR Part 63, Subpart BBBB, from Buckeye Terminal identifies the following tank capacities, which do not completely match the above.

- Tank 1, IFRT, storage capacity 2,797,200 gallons
- Tank 4, IFRT, storage capacity 2,016,000 gallons
- Tank 10, IFRT, storage capacity 428,400 gallons
- Tank 15, IFRT storage capacity 2,591,400 gallons

On 9/10/2019, I emailed Ms. Trostel, to ask for input as to which figures are most accurate. She advised me that : *Tanks can have many different capacities depending on how you ask the question. There is a aworking capacity that takes into acoount the high levels and vents at the tope of the tank and subtracts that quantity. There is a shell capacity that does not take this into account. There is also the measured quantity that comes from the measurements taken on a tank before it is put into service.*

For the differences I described, Ms. Trostel indicated on 9/11/2019 that it looks like Buckeye Terminals, LLC is using the shell capacity on the Subpart 6B reports and the working capacity in the 2015 activity report reference.

Records of facility throughput and emissions had been requested by me on 8/12/2019, prior to the inspection. I did not indicate to Ms. Trostel the date or time of the pending inspection. The records were received on 8/14, and are attached to this report for reference.

EULOADRACK; PTI No. 138-05B

Mr. Schulte and Andy showed me the loading rack, and explained its operations. I could not detect a gasoline smell until we were under the overhanging roof. I noticed a barely detectable gasoline smell, except when I was standing right next to a pump, the odor was distinct and definite.

In their maintenance shop, I was shown their vapor checklist that is filled out based on daily checks of the hoses for leaks. I was informed that they replace a hose if it has a leak, rather than attempt to repair it. Records showed that one vapor hose was recently replaced, on 6/17/2019.

I inquired as to the throughput of EULOADRACK. I was informed that in summer, throughput Mondays through Fridays can be 800,000 to 1,000,000 gallons per day (GPD), while Saturdays can be 600-700,000 GPD, and Sundays can be 400,000 GPD. It is my understanding that throughput is generally lower in winter.

The EULOADRACK section of the permit requires a Malfunction Abatement Plan (MAP) which includes a list of common replacement parts, common repairs, and requires records of the rack control device malfunctions. AQD has a copy of the MAP. The MAP meets the requirements of the permit conditions intent.

From records emailed to me by Ms. Trostel, the 12-month throughput was 285,971,129 gallons, for the time period 7/1/2018 through 6/30/2019. The limit is 375,000,000 gallons of petroleum products, so the most recent 12-month throughput was 76.26% of the allowable limit.

Vapor Recovery Unit: for EULOADRACK, PTI No. 138-05B:

The Vapor Recovery Unit (VRU) is the control system for the loading rack, and was running, with no visible emissions from the exhaust outlet. I was informed that if the VRU is down for maintenance, the Vapor Combustion Unit (VCU) is operated. I was told the VRU receives a twice per day walk-around check, as well as and monthly and quarterly maintenance. I received a copy of the latest quarterly maintenance record for EULOADRACK from Ms. Trostel by email, please see attached.

At 12:30 PM, I recorded the following data from the VRU:

- Current reading: 0.01%
- 1-hour average: 0.01%
- 6-hour average: 0.01%
- 24-hour average: 0.01%

For the carbon beds, I was told that bed 1 is the east bed, while bed 2 is the west one. There were no fugitive emissions from either bed. There were 14.3 minutes left on the regeneration of bed 2, I was shown. Bed 1, or V-1, was in use at the moment, on a 3-minute cycle.

The VRU has thresholds for high temperature detection and hazardous gas detection, I was told, which would shut the plant down until operators could respond and fix the VRU, I was told. If operators were unable to fix the VRU, I was advised that they would call the third party contractor John Zink to make repairs, and operators would operate the plant with the VCU, meanwhile.

The permit emission limits are 35 mg of VOC / liter product loaded. This limit can only be checked during testing based on averaging the loading of trucks until an amount of 300,000 liters (79,251 gallons) has been loaded in total. The testing procedure is outlined in 40 CFR Part 60, Subpart XX, *Standards of Performance for Bulk Gasoline Terminals*. Please see the section later in this report dedicated to Subpart XX.

Pursuant to 40 CFR Part 63 Subpart BBBBBB, *Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities*, the facility is required to install and operate a Continuous Emission Monitoring System (CEMS). The CEMS is installed on the Vapor Recovery Unit (VRU) exhaust stack. If the VRU malfunctions, or is unavailable due to maintenance, the facility has a vapor combustion unit (VCU) as back up, to combust petroleum vapors.

Pursuant to 40 CFR Part 63 Subpart BBBBBB's Table 3, and Section 63.8(a)(2), a Relative Accuracy Test Audit (RATA) was done most recently on 12/14/2016. This was conducted on the CEMS. This was also done to certify the CEM, as required by Section 63.11092(b). Please see N. Hude's associated CEMS Test Observation activity report.. To be in compliance, the relative accuracy must be <10% regarding the relevant standard. Test results sent to AQD on 1/5/2017 showed that the unit passed, with results 0.82% RA_{AS}, below 10%. Please see the section later in this report dedicated to Subpart BBBBBB.

Per N. Hude's 12/17/2015 inspection activity report, a Cylinder Gas Audit (CGA) on the VRU CEMS is required every 6 months. The purpose of the CGA is to challenge the CEMS with a known gas content to ensure the CEMS is reading and recording properly. CGA's and Excess Emission Reports (EER's) are not submitted to or logged in the AQD database.

FGIFRTANKS; PTI No. 138-05B:

The flexible group FGIFRTANKS, consisting of the emission units EU00001, EU00002, EU00004, EU00007, and EU00010, requires compliance with rules 604, 607, and 627 per SC III.1 and 2.

Rule 604 refers to storage of organic compounds having true vapor pressure of more than 1.5 psia, but less than 11 psia, in existing fixed roof stationary vessels of more than 40,000-gallon capacity. After 4/30/1981, it is unlawful to store an organic compound with a VP >1.5<11 psia at actual conditions of vessels >40,000 unless they meet 1 of the following: a) tank is capable of withstanding pressure to prevent vapor loss, b) vessel is equipped with a floating roof, c) vessel is equipped with a vapor recovery system. EU00001, EU00002, EU00004, EU00007, and EU00010 are compliant by this rule by use of an internal floating roof, 604(1)(b). I did not confirm compliance with paragraph (2) of this rule as per the following:

604(2) All openings, except stub drains, in any stationary vessel subject to the provisions of this rule shall be equipped with covers, lids, or seals so that all of the following conditions are met:
(a) The cover, lid, or seal is in the closed position at all times, except when in actual use.
(b) Automatic bleeder vents are closed at all times, except when the roof is floated off, or landed on, the roof leg supports.
(c) Rim vents, if provided, are set at the manufacturer's recommended setting or are set to open when the roof is being floated off the roof leg supports.

Rule 607 is in regards to loading gasoline into existing stationary vessels of more than 2,000-gallon capacity at loading facilities. (1) After June 30, 1980, it is unlawful for a person to load, or allow the loading of, gasoline from a delivery vessel into any existing stationary vessel of more than 2,000-gallon capacity located at a gasoline-loading facility in any county listed in table 61-a, unless the stationary vessel is equipped with a permanent submerged fill pipe.

Genesee county is listed in table 61-a, yet gasoline is delivered via pipeline. Per R336.1104(b) "Delivery vessel" means any tank truck, tank-equipped trailer, railroad tank car, or any similar vessel equipped with a storage tank used for the transport of a volatile organic compound from sources of supply to any stationary vessel.

Paragraph (2) of this rule does not apply due to reference to areas outside counties listed in table 61-a.

Paragraph (3) After December 31, 1982, it is unlawful for a person to load, or allow the loading of, gasoline from a delivery vessel into any existing stationary vessel of more than 2,000-gallon capacity located at either of the following loading facilities, unless the stationary vessel is controlled by a vapor balance system or an equivalent control system approved by the department: (a) A loading facility

located in any area listed in table 61.

Buckeye Terminal is located in Genesee County, T8N, R7E, Section 20. This is a section listed under Table 61, yet since gasoline is not loaded into a vessel from a "delivery vessel", this rule does not apply. Should Buckeye receive gasoline via a delivery vessel, they must comply with Rule 607.

Rule 627 states: A person shall not operate any delivery vessel that is subject to control by a vapor collection system, either vapor balance or recovery system, required by R 336.1606, R 336.1607, R 336.1608, R 336.1609, R 336.1703, R 336.1704, R 336.1705, or R 336.1706, unless all of the provisions of this rule are met.

INSPECTION RESULT: COMPLIANCE. Buckeye does not own delivery vessels.

PTI 138-05B SC FGIFRTANKS IV.1. requires the tanks to have a welded deck with a liquid primary seal and a secondary seal.

INSPECTION RESULT: COMPLIANCE. EU00001 EU00002, and EU00010 are tanks with a geodesic dome with an internal floating roof. Tanks EU00004 and EU00007 have cone roofs with an internal floating roof. These tanks meet the design parameters listed in this condition.

PTI 138-05B SC IFR TANKS VI.1 requires the permittee to retain records of throughput of each specific petroleum product for each calendar month and 12 month rolling time period.

INSPECTION RESULT: COMPLIANCE. Records of throughput of each petroleum product type for the terminal were provide by Ms. Trostel; please see attached.

EUTANK1, EUTANK2, EUTANK4, EUTANK10, EUTANK11, and EUTANK15 were examined during the inspection. The only tank with any surface rust on the tank itself was EUTANK15. I was shown that this tank is the subject of a work order, #1227904, for repainting. There were no visible emissions from any of the tanks.

I was advised that the seals of the NSPS Kb-subject EUTANK15 have been inspected, and that this is done every 5 years. I was told that it will be done again on 10/5/2020. This is the only Kb-subject tank onsite.

I was advised by the operators, and subsequently, by Ms. Trostel, that they do the following kinds of inspections:

1. Twice per day, they do a walk around examination of the tanks at the tank farm, and this is documented in hard copy form.
2. Every month they do a monthly tank inspection of every tank, and document this. I was told by Ms. Trostel in a subsequent email discussion that monthly in-service inspections are performed on all tanks at the Flint terminal. She indicated that this is not required by air regulations, but is an internal requirement of Buckeye terminal.
3. They do an annual in-service inspection on every tank, including and IFR inspection from the hatches of the tank.
4. They do external routine inspections every 5 years, pursuant to API (American Petroleum Institute) requirements.
5. Every 10 years, the IFR tanks are taken out of service for 1-2 months, for a close up internal inspection, done by a contractor.
6. A "653" inspection is done on all tanks, every 5 to 20 years, depending on Buckeye's opinion. This inspection is said to be required every 20 years at a minimum, and more often, if need be. Ms. Trostel advised it focuses heavily on corrosion and tank integrity.

FGFACILITY; PTI No. 138-05

I was shown a daily site inspection form for the facility. There were multiple items to check, under the

following categories:

- Gas & fuel oil loading
- Container storage
- Tank farm
- Lab
- VCU/VRU
- Sumps
- Ethanol offloading station and railcar
- Security inspection checklist

FGFACILITY lists the opt-out requirements for the site for VOC’s and HAPs, to keep the facility from becoming a major source. Compliance was conducted via records check of documents sent from Kim Trostel. The documents met all of the monitoring and recordkeeping requirements of SC VI. 1 and 2.

The emission limits are all per 12 month rolling time period, as determined at the end of each calendar month. Below is a comparison between limits and July 2018 to June 2019 calculated emissions:

- PTI 138-05B SC FGFACILITY I.1.- VOC 94.2 ton limit; 19.786 tons emitted
- PTI 138-05B SC FGFACILITY I.2.- Individual HAP less than 9 tons limit; 0.27 tons hexane emitted, as highest individual HAP
- PTI 138-05B SC FGFACILITY I.3.- Total HAP less than 22.5 tons limit; 0.7989tons total HAP emitted

Exempt tanks; Rules 284(i) and 284(2)(g)(i):

MAERS EU	EU description	Contents	Exemption rule
EUTANK6	Horizontal, submerged fill	XOM Additive HiTEC 65016 Gasoline Additive	284(i)
EUTANK8	Horizontal, submerged fill	CLS-1334 fuel additive	Rule 284(i)
EEUTANK12	Horizontal, submerged fill	Generic gas additive MCC 0092	284(i)
EUTANK13	Horizontal, submerged fill	BP Additive Invigorate-3	284(i)
EUTANK14	Horizontal	Summer/spring: MCC Lubricity 2115 SD Plus Winter/autumn: MCC Cold Flo 6415 SD Plus	284(i)
EUTANK19	350 gal. steel tote at EULOADRACK	Red dye	284(2)(g)(i)
EUTANK20	1,000 gal. additive tank	Diesel additive	284(2)(g)(i)

R336.1284(i) is a permit exemption 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.

In 2016, AQD's N. Hude confirmed that the tanks were all below the 40,000 gallon threshold.

EUTANK6, according to my field notes, is used to store XOM Additive HiTEC 65016 Gasoline Additive. The SDS I received for EUTANK6 is for HiTEC 6591N Fuel Additive, however. I could not locate vapor pressure within the SDS data. On 9/10/2019, AQD emailed Ms. Trostel, to determine the contents of Tank 6, and vapor pressure. On 9/10 she advised me that Tank 6 only contains HiTEC 6591N, and sent me the SDS (please see attached). She advised that the maximum vapor pressure for this generic additive is less than 0.1. This is well below the upper threshold of the exemption. There were no visible emissions witnessed from this tank during the inspection.

EUTANK8 is used to store CLS-1334 which is a fuel additive. This is the same material it stored in 2015. The SDS in 2015 indicated a vapor pressure of 0.2 psia. There were no visible emissions witnessed from the tank during the inspection.

EUTANK12 currently stores generic gas additive MCC 0092. The SDS, states that for vapor pressure

there is "No Data Available." On 9/10/2019, AQD emailed Ms. Trostel, to inquire as to vapor pressure, and she responded that the maximum vapor pressure for this generic additive is less than 0.1. This is well below the upper threshold of the exemption. There were no visible emissions witnessed from this tank during the inspection.

EUTANK13 currently stores BP Additive Invigorate-3. The SDS identifies the vapor pressure as 2.40 hPa at 20 degrees C, and 8.0 hPa at 49 degrees C. There were no visible emissions witnessed from this tank during the inspection.

EUTANK14 : For this tank, I emailed MS. Trostel on 9/10/2019, to seek clarification on which product or products are stored in this tank. Onsite, I had been informed that it stores the diesel additive Adversity during the summer., and during the winter, Adversity with Cold Flow is stored. The SDS I had received from Ms. Trostel on 8/14/2019 indicates the product is MCC Lubricity 2115 SD, however. In response to my 9/10 email, she advised me that in summer/spring, MCC Lubricity 2115 SD Plus is stored, while in winter/autumn, MCC Cold Flo 6415 SD Plus is stored. The maximum vapor pressure was estimated at 0.007 psi, well below the exemption's upper threshold of 1.5 psia. There were no visible emissions witnessed from the tank during the inspection.

Grandfathered Equipment:

MAERS EU	EU description	Contents	Install date
EUTANK3	Cone roof, submerged fill	Distillate oil #2	1959
EUTANK5	Horizontal, submerged fill	Transmix	1959
EUTANK7	Horizontal, submerged fill	Transmix	1959
EUTANK9	Cone roof, submerged fill	Distillate oil #2	1937

Act 348, Public Acts of 1965, also known as the Michigan Air Pollution Act, became effective on August 15, 1967. Equipment installed prior to this date is considered grandfathered if the equipment has not been reconstructed, relocated, or modified per Michigan Air Pollution Control Rule 201(1)(b).

EUTANK3 and EUTANK9 were installed in 1959 and 1937, respectively. Thus, they are considered grandfathered. In addition, these tanks contain distillate oil #2, also known as diesel fuel, so they meet the permit exemption of R284(d) which states:

Storage of no. 1 to no. 6 fuel oil as specified in ASTM-D-396, gas turbine fuel oils nos. 2-GT to 4-GT as specified in ASTM-D-2880, or diesel fuel oils nos. 2-D and 4 D as specified in ASTM-D-975. The ASTM methods are adopted by reference in R336.1299.

I saw no visible emissions from EUTANK3 or EUTANK9.

EUTANK5 was installed in 1959 and so is grandfathered. It is identified as containing transmix. A Safety Data Sheet (SDS) for the transmix identifies the vapor pressure as 2-475 mm Hg @ 20 C. I saw no visible emissions from the tank.

EUTANK7 was installed in 1959 and is said to contain transmix. I saw no visible emissions from Tank 7 during the inspection.

40CFR60 Kb

This NSPS regulation is for compliance inspections for any storage vessel > 75m³ (19,813 gallons) used to store volatile organic liquids which was constructed, reconstructed, or modified after 7/23/84. Per N. Hude, this regulation only applies to EUTANK15 based on a install date of 1995.

The requirement is for a seal inspection to be conducted every time a tank is taken out of service, yet not to exceed a 10 year interval. It is my understanding that Buckeye utilizes third party contractors to conduct the inspections, either in service or out of service depending on the circumstances. No certificate is required or produced after these inspections.

On 1/3/2018, Buckeye Terminals submitted a 30-Day Malfunction Notice required by Section 115b(a)(4) of Subpart Kb. It documented the removal of petroleum-contaminated water which was found on the floating roof of Tank 1. It also described the follow up work which was done to ensure that there were no future occurrences. It is not clear to me if Tank 1 is actually subject to Subpart Kb or not, so I will inquire as to its status.

40CFR Part 60, Subpart XX

Facilities subject to Subpart XX are identified as follows:

- (a) The affected facility to which the provisions of this subpart apply is the total of all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank trucks.
- (b) Each facility under paragraph (a) of this section, the construction or modification of which is commenced after December 17, 1980, is subject to the provisions of this subpart.
- (c) For purposes of this subpart, any replacement of components of an existing facility, described in paragraph (a) of this section, commenced before August 18, 1983 in order to comply with any emission standard adopted by a State or political subdivision thereof will not be considered a reconstruction under the provisions of 40 CFR 60.15.

60.2 Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Due to the installation of tanks as described in PTI's 319-94, 283-93, 1058-91, 905-91, 903-91, this constitutes an increase in facility emissions and thus is considered a modification of the facility.

Buckeye Terminal does comply with XX, though documentation in inspection records does not provide details regarding this regulation. It is my understanding that they have an automatic computer system that requires annual pressure tests on the trailers. Truck drivers have to turn them in on an annual basis for each trailer or the system will lock them out. The operators do a monthly LDAR check with sight, sound and smell which will include looking at trucks loading.

The last stack test was said by N. Hude tp have been conducted 5/13/2012. MACES lists 5/31/2012 as the date of the most recent stack test for the VCU. The most recent RATA for the VRU CEMS was conducted on 12/14/2016, and witnessed by AQD's N. Hude. The results found the facility to be in compliance.

40CFR63 BBBB

AQD does not have delegation authority of this regulation, thus a in depth inspection was not completed regarding the regulations requirements. However, semi-annual reports to demonstrate compliance with Subpart BBBB are submitted to AQD in addition to U.S. Environmental Protection Agency Region V. The most recent reports, submitted on 7/22/2018, 1/21/2019, and 7/30/2019, indicated compliance.

Subpart BBBB establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from area source gasoline distribution bulk terminals, bulk plants, and pipeline facilities. This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices. By definition, Buckeye is a bulk gasoline terminal and not a pipeline breakout station nor a pipeline pumping station.

This regulation refers to tanks containing gasoline only; thus it applies to EU00001, EU00002, EU00004, EU00007, and EU00010. The requirement is for the installation of submerged fill pipes (63.11086) for anything >250 gallons in capacity; leak inspections (63.11089); and management practices which reduce spills. A performance test is also required per 63.11092(a)(1) and the installation of a continuous monitoring system (CMS) on the vapor recovery system per 63.11092(4)(b). Testing methods are described in 40CFR60 XX.

AQD does not have delegation of authority from U.S. EPA for Subpart BBBB, as has previously been mentioned in this report. Buckeye reports to EPA and AQD, on a semi-annual basis, on compliance

status. Their 718/2019 semi-annual report indicates they are in compliance.

Conclusion:

No instances of noncompliance could be determined.

NAME  DATE 9/13/2019 SUPERVISOR 