

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

B908132622

FACILITY: Buckeye Terminals, LLC - Flint Terminal	SRN / ID: B9081
LOCATION: G-5340 N DORT HWY, FLINT	DISTRICT: Lansing
CITY: FLINT	COUNTY: GENESEE
CONTACT: Donald Padgett, Lead Terminal Operator	ACTIVITY DATE: 12/17/2015
STAFF: Nathaniel Hude	COMPLIANCE STATUS: Compliance
SUBJECT: Scheduled inspection to determine compliance with 324-88, 903-91, 138-05B, 40CFR60 XX, 40CFR60Kb, 40CFR63 BBBBbB.	SOURCE CLASS: SM OPT OUT
RESOLVED COMPLAINTS:	

This report was updated to a status of "Compliance" on 3/16/16 regarding the interpretation of R336.1284(l). A tank of 40,000 gallons or less is exempt if the contents have a vapor pressure of less than 1.5psia regardless of whether they are carcinogenic or not.

Inspection Report

B9081- Buckeye Terminal
G-5340 N. Dort Highway
Flint, MI

Inspection Date:

12/17/15

Facility Contacts:

Lee Ann Beck, Specialist HSSE Compliance, 216-271-8203, lbeck@buckeye.com
Donald Padgett II, Lead Terminal Operator, 810-789-9180, dpadgett@buckeye.com
Kim Trostel, Air Compliance Specialist, 419-993-8003, ktrostel@buckeye.com

MDEQ AQD Personnel:

Nathan Hude – 517-284-6779, huden@michigan.gov

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. Some fuel companies have

The facility is located on N. Dort Highway in a area consisting of industry for approx. 2 miles from I-475 exit 9, north to East Coldwater Road. Buckeye Terminal is located in the northern portion of this stretch. Residential areas are located just over ½ mile to the north, less than ½ mile to the west, ¼ mile to the south, and south-west, with sporadic homes to the east near CS Mott Lake. Prevailing winds for this area are generally westerly.

Applicable Regulations and Permits Associated with SRN:

- PTI 324-88 for a soil vapor extraction system located at 2427 Pierson Road, Flint
- PTI 903-91 for a 3000 gallon additive storage tank owned by Total Petroleum on Buckeye site
- PTI 138-05B for 5 tanks > 40000 gallons, EULOADRACK, and FGFACILITY VOC and HAP opt out limits
- 40CFR60 Kb: Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction, or Modification occurred after 7/23/84
- 40CFR63 BBBBbB: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities
- 40CFR60 XX: Standards of Performance for Bulk Gasoline Terminals

Previous Inspections:

7/28/14- Brian Culham, no concerns noted
8/20/10- Brad Myott, no concerns noted
7/17/08- Brad Myott, no concerns noted

Previous Violations:

none

Recent Complaints (within 2 years):

none

Inspection Key Concerns:

1. Permit 138-05B tank sizes listed in the EU Description Table are different when compared with MAERS tanks sizes. EU00007 (EUTANK10) is listed in MAERS as 14,000 gallons greater than the permitted size.
2. **MAERS lists PTI 515-81C as the permit for all tanks. This is incorrect and is in need of being updated appropriately.**
3. **PTI 138-05B states that all grandfathered, exempt, and previously permitted tanks are included under the description of FGFACILITY; a list of the tanks is not available to determine which is grandfathered, exempt, or permitted.**

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 - slop oil - 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 - slop oil (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; empty and out-of-service/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 - gasoline / distillate - 0.35x 10 6 gal - 47' dia. Int. Floating roof w/primary seal and submerged filling. Installed 1/1/1939
- EUTANK11- storage tank #11 - generic additive; 3,000-gall horizontal. Installed 1/1/1995
- EUTANK12- additive storage tank #12 - 8,000 gallon - horizontal w/submerged filling. Installed 10/1/1981
- EUTANK13- Amoco additive storage tank #13 - 8,000 gallon horizontal above ground w/submerged filling. Installed 1/1/1981
- EUTANK14- ExxonMobil diesel additive; 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 (empty/out-of-service in 2005). Installed 1/1/1980

All of these tanks are shown in MAERS as being permitted under PTI 515-81C. This is incorrect and requires to be changed to the appropriate permit. 515-81C was voided July 26, 2005

Inspection Summary

provided him with a copy of my business card, the inspection brochure, and the boiler card. We reviewed the inspection brochure and outlined the inspection process in his office. Don stated that that they did not have a boiler and thus the boiler MACT or information card applies. We also reviewed the three permits associated with the Buckeye SRN. I did not see any Visible Emissions (VE's) nor did I detect any odors. I met with Don at the main office and

Permit 324-88 is for a VOC stripper at another location that is approx. 5 miles away and looks to be an old gas station. I attempted to find the address by driving the area (prior to my arrival at Buckeye) and could not find the device. I believe

the site is now the location of a Rite Aid. Since Don was unaware of this permit and has no institutional knowledge on the spill site, I informed him that I would void this permit due to the fact that I believe the equipment has been removed. (On 1/20/16, I emailed Jim Innes of RRD to see if the spill site had been closed in the RRD database and inform him that it may be a site of interest. Jim provided me information that the site is not closed. The location address has been changed to 5018 Clio Road and the site is a former Mobil gas station. Current remediation is not being done, though test wells are on site to monitor the contamination. Jim provided me with a document containing spill information and the contact; Facility ID 0-0016718, Release ID C-0149-85A message was left for Mike Meola of ExxonMobil Oil Corporation, 407-282-7762 at 1:45pm on 1/22/16 requesting him to call me to discuss the voiding of the permit. I again attempted to call Mike on 2/1/2016 and sent him an email. A separate report will be generated for further correspondence on this matter.

Permit 903-91 was issued to Total Petroleum for a tank that is 3000 gallons in size. This permit was 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.

According to Don, this is Tank 11 (EUTANK11) and it is currently empty. Buckeye no longer stores Total products on its site. The 2014 MAERS report shows 0 emissions for EUTANK11. Based on EUTANK11's size and true vapor pressure (0.025 psi at 80°F per the permit app), I believe this tank is exempt from permitting per rule 284(i). I informed Don of this possible exemption and informed him of the permit avoidance instructions if avoidance is desired. There are three Special Conditions (SC) in permit 903-91:

14. VOC emissions shall not exceed 2 pounds per year; 0 emissions were reported for 2014.

15. Applicant shall not substitute materials which would cause appreciable change; no materials stored.

16. Shall be no VE's from the tank; none noted during walk through of tank farm.

Permit 138-05B. B version was issued for the installation of the VRU, 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.

This permit is less than ideal; it is missing installation dates in the EU Summary Table, does not list stack dimensions for the Vapor Recovery Unit, refers to rules (607, 627, 604) and regulations without details as per newer permits do, 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:

Permit EU	MAERS EU	Permit Size	MAERS Size	Difference	*Working
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

Follow-up will need to be done with the company to confirm tank sizes. An effort to match permit and MAERS naming convention should also be made if feasible. An email was sent on 1/25/16 to Lee Beck asking for the correct sizes. A response was received on 2/8/16 from Kimberly Trostel, these sizes are identified as the "Working" column above. Corrections to MAERS will be made as appropriate. It is noted that due the combined difference in these tanks are +336,200, so Buckeye is over reporting it's emissions.

During the inspection, Don did not have access to the records listed in the permit but they were readily available electronically. Don contacted Lee by phone and we discussed the information needed so that I could confirm the monitoring and recordkeeping portion of the permit. This information was received via email on the day of the inspection.

EULOADRACK

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. The MAP was unavailable at the site. Don stated that they do not perform maintenance on any of the devices and that the maintenance is contracted out. He also stated that when the vapor recovery unit (VRU) goes down due to a malfunction, they have the vapor combustion unit (VCU) as backup. If the VRU and the VCU go down, Don stated that they would quite pumping fuel. I informed Don, that it was in their best interest to have the MAP onsite. A copy of the MAP was emailed by Lee with the other records the same day. The MAP meets the requirements of the permit conditions intent.

Via records check, the 12 month rolling average of 273,511,155 gallons for Dec14-Nov15; the limit is 375,000,000 gallons of petroleum products. The 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 40CFR60 XX. In 2012 a RATA was conducted using the CEMS on the VRU outlet; the test showed that a result of 1.46 mg/liter after 4 of the required 9 runs. Test requirements are not listed in the permit. While onsite, I viewed the CEMS installed and recorded a value of 0.21 for C3H8. This would equate to the limit if pumping 3550 gallons which is less than the smallest of common tanker trucks; there were 4 trucks in the rack thus the actual result should logically be well below the mg/liter limit. Dan informed me that on average, they recover approx. 1500 gallons of gas per day from the VRU.

During the inspection, Tim Newman of Jordan Technologies was onsite conducting a Cylinder Gas Audit (CGA) on the VRU CEMS which 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. Tim stated that the CGA was going well and they were passing. I checked MACES and found that CGA's and Excess Emission Reports (EER's) are not submitted to or logged in the AQD database.

FGIFRTANKS

FGIFRTANKS (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." Buckeye does not own delivery vessels. During the RATA conducted on the VRU in 2012, checks on vehicles were also being conducted which is a requirement of the test method.

SC IV.1. requires the tanks to have a welded deck with a liquid primary seal and a secondary seal. 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.

SC 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. These records were included in the documents emailed by Lee Ann Beck.

FGFACILITY

FGFACILITY lists the opt-out requirements for the site for VOC's and HAPs. Compliance was conducted via records check of documents sent from Lee Beck. 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 Dec14-Nov15 calculated emissions:

SC I.1.- VOC 94.2 ton limit, 8.02 tons emitted

SC I.2.- Individual HAP less than 9 tons limit, 1.47 total HAP emitted

SC I.3.- Total HAP less than 22.5 tons limit, 1.47 total HAP emitted

Previously Listed as Exempt or Grandfathered Equipment

Previous activity reports have listed the following tanks as exempt equipment: EUTANK3, EUTANK6, EUTANK7, EUTANK8, EUTANK9, EUTANK11, EUTANK12, EUTANK13, and EUTANK14.

Formerly Identified as Exempt Equipment Using 284(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.

I confirmed that the tanks were all below the 40,000 gallon threshold. On 1/26/16, I requested MSDS sheets for all items stored in these tanks in order to confirm the carcinogenic properties and vapor pressure of the contents.

EUTANK7 was listed as exempt per this rule in a past reports. This is incorrect. Due to the install date of 1959, this tank is "Grandfathered". Further information is discussed below. It should be noted that the SDS for the contents, Transmix, is a carcinogen and has a vapor pressure of 3.9 psi.

Interpretation of Rule 284(i) is being conducted by the AQD to determine if carcinogenic solutions may be claimed as exempt per this rule if the vapor pressure of the solutions is less than 1.5 psia. Until this decision/interpretation is complete, the following tanks will be considered compliant with the exemption. (Further determination and discussion of the rule found that the contents of tanks need to have a VP of less than 1.5psia regardless of being a carcinogen or VOC).

EUTANK6 is used to store HiTEC 6592N Fuel Additive. The SDS provided by Buckeye identifies this substance as carcinogenic. The SDS does not list a vapor pressure; a call was placed on 2/3/16 to Afton Chemical Corp at 804-788-5800, and a message left with Wayne Kennedy requesting more information. On 2/4/16, I received an email from Afton stating the VP is approx. 0.048 psi at 68°F.

EUTANK8 is used to store CLS-1334 which is a fuel additive. The SDS provided by Buckeye identifies this substance as carcinogenic, with a vapor pressure of approx. 0.2 psi.

EUTANK11 is actually permitted under PTI 903-91 by Total Petroleum. Further information is discussed above under 903-91.

EUTANK12 is used to store Keropur AP 205-20 Gas Additive. The SDS provided by Buckeye identifies this substance as carcinogenic, with a vapor pressure of approx. 0.09 psi.

EUTANK13 is used to store Invigorate 1 a gas additive. The SDS provided by Buckeye identifies this substance as carcinogenic, with a vapor pressure of approx. 0.09 psi.

EUTANK14 is used to store Diesel Fuel Supplement +Cetane Boost. The SDS provided by Buckeye identifies this substance as carcinogenic, with a vapor pressure of approx. 0.95 psi.

Grandfathered Equipment

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

EUTANK3 and EUTANK9 were installed in 1959 and 1937 respectively. Thus these tanks are considered grandfathers. Furthermore, these tanks contain "Distillate Fuel #2". Based on these contents, these tanks meet exemption from the permitting process via 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.

EUTANK5 was installed in 1959 and listed as a "slop oil" tank.

EUTANK7 was installed in 1959 and listed as a "slop oil (transmix)" tank. A Safety Data Sheet for the "Transmix" identifies the vapor pressure as 26.7 to 93.3 kPa; 26.7 kPa is equivalent to 3.9 psi. The SDS also lists transmix as a carcinogen. Based on this information, should a modification of this tank occur, it would require permitting due to the use of exemption 284(i) being insufficient.

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. 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. 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. When asked, Lee Ann Beck stated the company was compliant with the regulation via the methods listed above. Based on the information attained during and after the inspection, I believe Buckeye is in compliance with this regulation.

40CFR60 XX

(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.

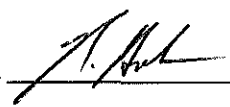
Buckeye Terminal does comply with XX, though documentation in inspection records does not provide details regarding this regulation. Kim Trostel informed me that they have an automatic computer system that requires annual pressure tests on the trailers. Truck drivers have to turn them in on an annual 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 stack test was conducted 5/13/2012 and the last RATA was documented 5/31/2012. Based on the information attained during and after the inspection, I believe Buckeye is in compliance with this regulation.

40CFR63 BBBB- MDEQ AQD does not have delegation authority of this regulation, thus a in depth inspection was not completed regarding the regulations requirements.

This subpart 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. Based on the information attained during and after the inspection, I believe Buckeye is in compliance with this regulation.

NAME 

DATE 3/17/16

SUPERVISOR 

