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

B918152328

FACILITY: Sunoco Partners Marketing & Terminals L.P - Owosso		**SRN / ID:** B9181
LOCATION: 4004 W. Main Street, OWOSSO		**DISTRICT:** Lansing
CITY: OWOSSO		**COUNTY:** SHIAWASSEE
CONTACT: Jared Everitt , Environmental Specialist		**ACTIVITY DATE:** 01/29/2020
STAFF: Julie Brunner	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled Compliance Inspection - PTI 27-04 as part of an FCE		
RESOLVED COMPLAINTS:		

On January 29, 2020, I conducted a scheduled inspection of Sunoco Partners Marketing & Terminals LP, Owosso Terminal (B9181). The inspection is part of a Full Compliance Evaluation (FCE). The last compliance inspection of the facility was performed on April 19, 2017.

Arrived: 9:00 AM
Departed: 12:30 PM
Weather: 30°F, wind E@5 MPH, UV Index 0

Contacts:
Mr. Jared Everitt, Environmental Specialist, office: 313-292-9822, jared.everitt@sunocologistics.com

Facility Description:
Sunoco Partners Marketing & Terminals LP, Owosso Terminal (Sunoco) is a bulk gasoline storage distribution terminal located on the west side of town off of Main Street (M-21) in Owosso in a rural and commercial / light industrial area. The facility is an existing petroleum bulk terminal consisting of the truck loading rack with a vapor recovery unit (VRU) for control and a vapor combustion unit (VCU) for backup, and numerous above ground storage tanks. Petroleum products are received by pipeline, and typically include gasoline, ultra low sulfur diesel (USLD), and ethanol.

The facility is a synthetic minor for emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAPs) with opt-out limits of less than 100 tons per year (tpy) for VOC, and less than 10 tpy of any single HAP and 25 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 at greater than 90% of thresholds.

Commencement of Mfg. Operations: 1959

Plant Capacity: Maximum allowed throughput of gasoline is 249,437,000 gallons per 12-month rolling time period with a potential to emit (PTE) based on 100 tank turns per year of petroleum products.

Staff #: 4 Shifts/Day: 2 (8-hr shifts) Days of Operation/Week: Manned 5 days/week (truck loading is 24/7)

Boilers? Yes - Two (2) fuel oil-fired boilers:
Weil-McLain hot water boiler, 0.336 MMBtu/hr, Serial No. M351076, Date of Manufacture: 1988 (back-up)
Weil-McLain hot water boiler, 0.295 MMBtu/hr, Serial No. M427086, Date of Manufacture: 2010 (primary)

Exempt per Rule 282(2)(b)(ii), each with less than 120 gallon hot water capacity and a heat input capacity of less than 1.6 MMBtu/hr, and therefore, not subject to 40 CFR 63, Subpart JJJJJJ.

Emergency Generators? No

Cold Cleaners? Yes
EUCOLDCLEAN: 3.5 gallon parts washer which uses mineral spirits with an air/vapor interface of not more than 10 square feet. Exempt per Rule 281(2)(h).

Oil/water separator (EUOWS) exempt per Rule 285(2)(m)(i).

List of Active Air Use Permits:
PTI 27-04 for loading and storing petroleum products, and a VOC and HAPs opt-out.

VRU installed in 2011 under exemption Rule 285(2)(d). The permit contains requirements for a thermal oxidizer (VCU) that is now used for back-up.

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

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Requirements
EUGASLOADING	Gasoline truck loading rack utilizing bottom loading and a thermal oxidizer to control emissions	Rule 205(1)(a) and (b); Rule 609 (2); Rule 627; Rule 910; Methods in 40 CFR 60, Subpart XX used for testing
EUTANK#3	36,000 barrel above ground internal floating roof storage tank	Rule 205(1)(a) and (b); Rule 702 (a) and (d)
EUTANK#5	25,000 barrel above ground internal floating roof storage tank	Rule 205(1)(a) and (b); Rule 604; Rule 702(d); Notice of inspection (3/1 to 5/1/2016) per the requirements of 40 CFR 63, Subpart WW sent
EUTANK#6	35,000 barrel above ground internal floating roof storage tank	Rule 205(1)(a) and (b); Rule 604; Rule 702(d)
EUTANK#7	35,000 barrel above ground internal floating roof storage tank	Rule 205(1)(a) and (b); Rule 604; Rule 702(d)
EUTANK#8	40,000 barrel above ground internal floating roof storage tank	Rule 205(1)(a) and (b); Rule 604; Rule 702(d)
EUADDITIVETANK#9	238 barrel horizontal gasoline additive storage tank with a conservation vent	Rule 205(1)(a) and (b)

Emission Unit (EU) / Flexible Group (FG) ID	Description	Applicable Requirements
FGTANKS	Flexible group for EUTANK#3, EUTANK#5, EUTANK#6, EUTANK#7, and EUTANK#8	Rule 205(1)(a) and (b); Rule 604; Rule 702(d)
FGFACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	Rule 205(1)(a) and (b); 40 CFR 63, Subpart BBBBBB

Applicable Regulations Review:

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

§60.500 Applicability and designation of affected facility.
(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.

§60.502 Standard for Volatile Organic Compound (VOC) emissions from bulk gasoline terminals.
On and after the date on which §60.8(a) requires a performance test to be completed, the owner or operator of each bulk gasoline terminal containing an affected facility shall comply with the requirements of this section.
(a) Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading.
(b) The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded, except as noted in paragraph (c) of this section.
(c) For each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.

Sunoco pre-dates 40 CFR 60, Subpart XX, and is therefore, not subject to any standards of performance for bulk gasoline terminals

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. The state does not have delegation for this standard. All required reporting is submitted to EPA, and the AQD is copied as a courtesy. The last "Semi-Annual Compliance Report & Notification of Compliance Status" was submitted in January 2020.

Michigan Air Emissions Reporting System (MAERS):
The facility reports emissions to MAERS. Under the new fee structure, the facility will report as a Category E. The total source VOC emissions reported for 2018 was 18.5 tons.

Inspection:
Upon arrival, I detected no odors around the facility. There were no visible emissions from the tanks or any exhaust stack vents. Tanker trucks were continuously being loaded with gasoline or diesel during the inspection.

I was met by Mr. Jared Everitt. A pre-inspection meeting was conducted and I discussed the purpose of my visit. Facility operations and records were discussed followed by the yard inspection/tour.

A program called TopTech tracks facility petroleum loading. Each tanker truck driver has a card that is scanned and the amount of petroleum product that is loaded is recorded. The data is uploaded monthly. In the last year, the facility loaded approximately 63 million gallons of gasoline, 7.0 million gallons of ethanol, 0.6 million gallons of transmix, and 18.5 million gallons of diesel.

There are three covered bays with five active loading positions for petroleum loading. Vapors from the loading of gasoline are controlled by a VRU. The VRU was installed in 2011 as the primary control device. The VRU replaced the VCU which was installed 1-14-2000, and is now used for backup. The VRU operates ~90% of the time to collect organic vapors emitted from the bottom of the tank during truck loading. The process consists of two (2) carbon absorption beds which continually cycle and regenerate every 15 minutes. The organic vapors are desorbed from the carbon, condensed, and reabsorbed into the process. There is a bypass stack and a bypass switch to go from the VRU to the VCU. A VOC CEMS is used to monitor the performance of the VRU. The VRU and CEMS are not on PTI 27-04. (The process/operational restrictions, design/equipment parameters, monitoring and recordkeeping on PTI 27-04 need to be updated to match what is currently used to demonstrate compliance.)

EU ID	Install Date	Description	Notes:
EUGASLOADING	1959	6 loading racks: Rack 1 – gasoline Rack 2 – not used Rack 3 – transmix Rack 4 – gasoline Rack 5 – diesel Rack 6 – diesel	VRU – Annual RATA of the CEMS was completed on 5-9-2019 VCU tested on 5-8-2019 as required by SC 1.7 at least once every 5 years. Spill protection and trench drains in the bay area. An oil/water separator system is located east of the loading rack with the outfall by the road. There was little to no evidence of spills or leaks. A snap shot of the CEMS readout showed 0.04% as propane emissions current, 0.04% on a 1-hr rolling average, 0.04% on a 6-hr rolling average, 0.03% on a 6-hr rolling average. (Picture attached)

In the bays, product transport lines are clearly marked. 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 water goes to the outfall as allowed under a NPDES permit.

A technician maintains the vapor control systems. There are quarterly preventative maintenance (PM) checks on the VRU, semi-annual PMs on the VCU, and monthly leak tests. There have been no malfunctions of the control system in the last couple of years. The preventative maintenance on the VCU as required in Special Condition (SC) 1.4 is completed. The records required by SC 1.11 are well kept.

Monthly smell logs and "sniff" tests are completed for leak detection, and include the loading rack, terminal yard, and vapor recovery area. A note on the logs indicates that leaks are to be repaired with 5 days and/or must be completed within 15 days. The equipment used for the "sniff" test is calibrated quarterly.

A sign is posted on the racks with written procedures for the operation per SC 1.2.

No compliance issues were observed during the inspection of the loading rack and control equipment. 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 Rule 910.

The following is a list of tanks in the yard:

EU ID	Install Date	Description	Notes:
EUTANK#1	1959	USLD storage tank – 1.04* M gal, cone, fixed roof	Exempt per Rule 284(2)(d)
EUTANK#2	1959	USLD storage tank – 1.48* M gal, cone, fixed roof	Exempt per Rule 284(2)(d)
EUTANK#3	1959	Low grade gas storage tank - 1.4 M gal, IFR	Seal and gape measurement Aug. 2018, API 653 – cleaning, repairs, and seal and gape due Aug. 2020
EUTANK#4	1959	Transmix storage tank – 63,000 gallon with IFR.	Exempt per Rule 291(2) but need to complete the PTE demonstration.
EUTANK#5	1959	Ethanol storage tank – 1.5 M gal, IFR	API 653 – cleaning, repairs, and seal and gape in 2017.
EUTANK#6	1959	Low grade gas storage tank – 1.47 M gal, IFR	Seal and gape measurement 2018.
EUTANK#7	1959	High grade gas (Premium 913) storage tank - 1.47 M gal, IFR	Seal and gape measurement 2012, due 2022
EUTANK#8	1971	Low grade gas storage tank - 1.68 M gal, IFR	Seal and gape measurement 2013, due 2023
EUADDITIVETANK#9	1990	10,000 gallon gas additive tank, fixed roof	All additive tanks are reported under this emission unit.

EU ID	Install Date	Description	Notes:
EUTANK#11	1/1/96	USLD additive tank, fixed roof	Exempt per Rule 284(2)(i)
EUTANK#12	1/1/97	USLD additive tank, fixed roof	Exempt per Rule 284(2)(i)
EUTANK#13	1/1/99	4136 gallon gas additive tank, fixed roof	Exempt per Rule 284(2)(i)
EUTANK#14	1/1/99	Gas additive tank, fixed roof	Exempt per Rule 284(2)(i)
EUTANK#15	1/1/06	USLD additive tank, fixed roof	Exempt per Rule 284(2)(i)
EUTANK#16	2014	Butane bullet - 60,000 gal pressurized storage tank	Exempt per Rule 284(2)(j). Off-loading and rack blended.
HOTANK#17		Green double walled heating oil (HO) tank – 1,000 gal	Exempt per Rule 284(2)(i)

A full API 653 is completed every 20 years on the tanks which include cleaning, inspection and repairs. Seal gape measurements per GDGACT are completed every 10 years and annual visual inspections of the tanks are completed as required by SC 3.3. Records as required by SC 3.4 are maintained.

A walk through inspection around the tanks in the yard was conducted. There was no visible sheen on any standing water in the yard, and no visible leaks or odors were detected around piping or tanks.

Records Review:
An electronic copy of the records was emailed and reviewed while on-site. Records obtained for the inspection are located in the district files at S:\Air Quality Division\@District Facilities\B9181\Records\Owosso Air Inspection 1-29-2020 Records Request.

The following records were obtained for the years 2017 to 2019:
1. Monthly sight, sound & smell logs
2. Annual Terminal "sniff" test logged monthly
3. Vapor Control Maintenance and Repair Logs for the VRU and VCU
4. Quarterly Preventative Maintenance Inspections for VRU
5. Semi-Annual Preventative Maintenance (PM) Inspections for VCU.
6. Continuous Emissions Monitor (CEM) Quarterly Worksheets.
7. AIR-4 2018-01-16 Owosso Terminal PTI Exemptions

The throughput of gasoline, fuel oil, ethanol, and all other products loaded through EUGASLOADING for the 12-month rolling period at the end of 2019 (as required by SC 1.10) was 89,293,612 gallons.

The throughput and VOC emissions for the 12-month rolling period at the end of 2019 (as required by SC 2.5 and 2.6) from EUTANK#3 were as follows:
Gas throughput – 19,962,778 gallons < 144,303,200 gallons (SC 2.2)
VOC – 3.6 tpy < 4.8 tpy (SC 2.1a)

For FGFACILITY, the gas throughput and emissions for the 12-month rolling at the end of 2019 were as follows:

Gas throughput – 63,132,350 gallons < 249,437,000 gallons (SC 4.2)
VOC – 21.5 tpy < 100 tpy (SC 4.1c)
Highest Single HAP (hexane) – 0.24 tpy < 10 tpy (SC 4.1a)
Total HAPS – 0.80 tpy < 25 tpy (SC 4.1b)

All gas throughput and emissions are below the permit limits in PTI 27-04.

Summary:
The facility appeared to be in compliance with the applicable rules and regulations, and PTI 27-04.

The recommendation from the previous inspection of documenting and/or generating a complete list of all exempt equipment including the applicable exemption rule was completed. The listing is attached to this report.

The recommendation to cleanup/update PTI 27-04 to modify the permit conditions to include the VRU, and update the testing and monitoring for the CEMS has not been completed.

An additional permit issue has arisen. An API 653 for EUTANK#3 is tentatively in August 2020, but could happen as early as April. EUTANK#3 is limited to 4.8 tpy of VOC emission per SC 2.1a. A conservative estimate is that 2 – 5 tons of VOC emissions could occur with the tank clean out that is necessary to do an API 653. VOC emissions for EUTANK#3 in 2019 were 3.6 tons so a VOC emission increase of up to 5 tons could be a compliance issue. Contact with the Permit Section was advised to discuss options for modifying PTI 27-04. It does not appear that the project qualifies to be completed under any exemption rule.

NAME Julie L. Brunner DATE 2/6/20 SUPERVISOR D.M.