

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

B918125483

FACILITY: Sunoco Partners Marketing & Terminals LP - Owosso		SRN / ID: B9181
LOCATION: 4004 W Main St, OWOSSO		DISTRICT: Lansing
CITY: OWOSSO		COUNTY: SHIAWASSEE
CONTACT: Jennifer Roberts , Environmental Specialist		ACTIVITY DATE: 06/04/2014
STAFF: Brad Myott	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Perform a scheduled inspection to determine compliance with PTI 27-04 and witness stack test.		
RESOLVED COMPLAINTS:		

Facility contact: Jennifer Roberts and Alyssa Laird  
[JROBERTS@sunocologistics.com](mailto:JROBERTS@sunocologistics.com); [ALAIRD@sunocologistics.com](mailto:ALAIRD@sunocologistics.com)

Sunoco Partners Marketing & Terminals, L.P. is a bulk gasoline storage and distribution terminal located on the west side of town off of Main Street (M-21) in Owosso in a commercial / light industrial area. The facility is an existing petroleum bulk terminal consisting of the truck loading rack, controlled by a vapor recovery unit, and numerous above ground storage tanks, several of which are exempt from the Rule 201 requirement to obtain a permit to install. Petroleum products are received by pipeline and typically include gasoline, #2 fuel oil, kerosene, and ethanol.

Sunoco Owosso primarily emits volatile organic compounds (VOC) and hazardous air pollutants (HAPs). The facility received an opt out permit in 2004 to restrict VOC and HAPs below Title V thresholds. At that time it was determined that NSPS Subpart Ka or XX did not apply to the facility based on either the size of the storage tanks or the date of installation of the equipment.

Because Sunoco Owosso Terminal is an "Area Source of HAP they are subject to 40 CFR 63 Subpart BBBBBB , the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Bulk Gasoline Terminals. Michigan DEQ presently does not have administrative authority to enforce this subpart. The subpart requires semi-annual reporting of compliance to be submitted to EPA.

This was an unannounced compliance investigation of the bulk gasoline terminal. The facility consists of petroleum products storage and distribution and is covered by opt out Permit to Install 27-04. The storage tanks mainly include gasoline, fuel oil, ethanol, kerosene, and gasoline additives. The distribution is accomplished by loading racks which meter and deliver liquid products into delivery tank trucks.

No major changes at the facility. They received an opt-out permit in 2004 and are no longer a Title V source. Business has been steady.

Conditions were sunny with light winds. I detected no odors in or near the facility. I met with Jennifer Roberts, Environmental Specialist. Michelle Luplow of AQD was with me on this inspection. I provided Jennifer with a copy of the "DEQ Environmental Inspections" brochure and we then proceeded outside to the loading racks and control device to conduct an inspection of the equipment.

EUGASLOADING: There are 6 loading racks at the facility. According to previous records the racks were installed in 1959 and thus exempt from NSPS subpart XX. Racks 1 & 4 are gasoline, 2 is not being used, 3 is for transmix loading and 5&6 are for diesel loading. No physical, audible, visible, or odorous vapor leaks were detected, which complies with Rule 609 in the vicinity of the loading rack. No odors were noted at the facility. Several trucks went through the terminal during the inspection and we were able to witness some of them loading. Trucks are electronically locked out of the racks if their approved vapor test is not up to date in the computer system. The computer system will also notify the driver when it is time to update the vapor test. Sunoco performs leak tests at least once a month on the loading rack equipment. They use a Gastech Model 1314 which monitors LEL and O2.

The loading rack has two control devices. The main or primary control device is a Vapor Recovery Unit (VRU) which was installed in 2012 under exemption 285(d). The VRU is inspected daily and a maintenance log is kept on file. See attached. The VRU was scheduled to be tested tomorrow. PTL 27-04 requires that the control device for the loading racks is tested at least once every 5 years.

The VRU consists of two carbon adsorbers. While one adsorber is processing gasoline vapors the second carbon adsorber is off-line being vacuum generated (i.e. cleaned). Regeneration restores the carbon to a level where it will effectively adsorb hydrocarbons again. The two carbon adsorbers alternate between adsorption and regeneration at 15-minute intervals. During regeneration hydrocarbon vapors are sent to the absorber tower where they are condensed and absorbed by the counter flow liquid gasoline feed in the absorber tower and are then pumped back to the terminal's gasoline storage tank. It is estimated that approximately 2 gallons of gasoline is recovered by the VRU for every 1,000 gallons loaded.

The back up control device is the Vapor Combustion Unit (VCU). It operates when the VRU unit is down. The VCU unit was being stack tested on this day. The stack test appeared to be running as planned. Preliminary numbers were around 26 mg/l, well below the federal standard of 80 mg/l and the permit limit of 0.7lb/1000 gals (0.84 mg/l). The stack test required a six hour time period and 80k gallons of gasoline through the loadout racks. At approx 11:00 a.m. the terminal had achieved the 80k gallon threshold. The test was scheduled to end at noon. As part of the stack test, flow, temp, CO, CO2, and VOC inlet and outlet concentrations were being recorded. The method also required periodic vapor leak checks of the tanker trucks and backpressure readings at the vapor return hose connection during loading. I verified that both of these checks were being performed and the stack testers indicated that the values they were seeing were in range.

The combustor appeared to be operating properly at the time of the inspection. It typically only turns on when the terminal racks are operating but was running continuously today due to the stack test. The temperature of the outlet gas was around 300 deg. F. The outlet gas temperature of the VCU appears to be around 300 F or higher when the unit is loading and down around 90 deg F when it is stand by. (Thermal couple is at least 20 feet above combustion chamber in stack.) The outlet gas temperature varies with the quantity of vapor that is burned. A better method to determine if the incinerator is working properly is to observe the flame and the presence of any smoke. The unit automatically kicks on when a truck hooks up a vapor return hose to the loading rack and has a timed shutoff after the hose is disconnected. There were no odors or smoke associated with this operation.

**FGTANKS:** One new tank has been installed since the last inspection. It is a 60,000 gal pressurized vessel for the storage of butane. It is exempt per Rule 284(j). We did not walk the tank farm on this inspection. I did look over monthly tank inspection records for the tanks. See attached. Below are the tanks identified as part of FGTANKS:

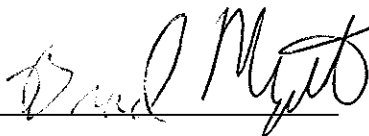
Emission Unit ID	Emission Unit Description	Install Date	Compliance
EUADDITIVETANK#9	238 barrel horizontal gasoline additive storage tank with a conservation vent	1990	Yes
EUTANK#3	36,000 barrel above ground internal floating roof storage tank	1959	Yes
EUTANK#5	25,000 barrel above ground internal floating roof storage tank	1959	Yes
EUTANK#6	35,000 barrel above ground internal floating roof storage	1959	Yes

	tank		
EUTANK#7	35,000 barrel above ground internal floating roof storage tank	1959	Yes
EUTANK#8	40,000 barrel above ground internal floating roof storage tank	1971	Yes

EUCOLDCLEAN: Exempt per Rule 281 (h). Cover to parts washer closed.

The facility is allowed less than 100 tons per year VOC emissions and 249 million gallons/yr of gasoline throughput. The facility's 12 month rolling time period emissions of VOC's through March 2014 are currently around 22 tons/yr. Gasoline and ethanol throughput are at 79 million gallons combined per year, see attached throughput and emission records provided during the inspection. . The emissions are based on throughput amounts and stack test results. The VCU was tested in July 2004, July 2009 and June 4, 2014. The VRU will be tested on June 5, 2014. A stack test is required every 5 years per special condition 1.7 in permit 27-04. All stack test results will be received and reviewed at a later time. Overall this is a well operated facility and based on the emissions, throughput amounts and inspection of equipment, the facility appeared to be operating in compliance with permit 27-04.

NAME



DATE

6/15/14

SUPERVISOR

