

B2926
MAY 14

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

B292632049

FACILITY: Sunoco Partners M & T, L.P. - River Rouge Terminal		SRN / ID: B2926
LOCATION: 500 S DIX AVE, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Lisa Fishbeck , Environmental Specialist		ACTIVITY DATE: 10/19/2015
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Scheduled Inspection
 INSPECTED BY: Todd Zynda, AQD
 PERSONNEL PRESENT: Anthony Sobocinski, Terminal Operator
 FACILITY PHONE NUMBER: 313-843-0243
 FACILITY FAX NUMBER: 313-475-3500
 FACILITY WEBSITE: sunocologistics.com

FACILITY BACKGROUND

Sunoco Partners Marketing and Terminals, L.P. (Sunoco) River Rouge Terminal is located at 500 South Dix Avenue, Detroit, Michigan. The facility operates a gasoline and distillate storage and loading facility. The facility is surrounded by industrial and commercial business. To the north is the Rouge River and AK Steel; to the southwest is an asphalt facility; to the east and south are industrial and commercial businesses. Residential areas are located approximately 0.30 miles to the southeast, 0.5 miles to the east, and 0.8 miles to the southwest.

The facility operates 24 hours a day, seven days a week, with tanker trucks loading any time during the day. Sunoco currently has three full time employees at the River Rouge Terminal. Current terminal employee hours are 7 AM to 4:30 PM, Monday through Saturday.

Sunoco is subject to Title V (Renewable Operating Permit [ROP]) permitting regulations because the potential to emit for volatile organic compounds (VOCs) exceeds 100 tons per year. Sunoco is not considered a major source of hazardous air pollutant (HAP) as the potential to emit HAPs does not exceed 10 tons per year for any individual HAP, nor 25 tons per year for all HAPs combined. However, the facility is subject to Maximum Achievable Control Technology (MACT) reporting requirement under 40 Code of Federal Regulations (CFR) Part 63, Subpart R (National Emission Standards for Gasoline Distribution Facilities [Bulk Gasoline Terminals and Pipeline Breakout Stations]), and 40 CFR Part 63, Subpart BBBBBB (Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities). Sunoco is also subject to the New Source Performance Standards (NSPS) for VOCs 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 Part 60, Subpart Kb) as a modification occurred at EUTANK#42 after the specified date of July 23, 1984.

PROCESS OVERVIEW

The facility receives gasoline and distillate through pipelines and loads them into tank trucks using loading racks. The gasoline storage and loading facility requires control equipment. All gasoline is bottom loaded into trucks that are connected to the vapor collection system (VCS) during product loading. The VCS consists of a vapor recovery unit (VRU) and a vapor combustion unit (VCU). The VRU is a Jordan Vapor Recovery Unit, and was installed in 2009 with a design rate of 10 milligram per liter (mg/L) VOC emissions rate. The VCU only operates when the VRU is down for maintenance. Emissions from the VRU are monitored continuously by a continuous emissions monitoring system (CEMS) which records VOC emissions as percent propane.

TANK ID	CAPACITY (gal)	PRODUCT	Description
38	1,260,000	Gasoline	fixed cone, internal floating roof
39	1,260,000	Gasoline	fixed cone, internal floating roof
42	210,000	Ethanol	fixed cone, internal floating roof
43	630,000	ULSD	vertical fixed roof
44	1,260,000	Gasoline	fixed cone, internal floating roof
49	840,000	ULSD	vertical fixed roof
50	84,000	Transmix	fixed cone, internal floating roof
51	1,050,000	Gasoline	fixed cone, internal floating roof
60	10,000	Gasoline Additive 0519	R336.1284(i) exempt equipment
61	1,000	ULSD Winter Blend Additive 0519	R336.1284(i) exempt equipment
62	275	REDDYE Additive (BK-50)	R336.1284(i) exempt equipment
63	1,002	Lubricity Additive w/Conductivity	R336.1284(i) exempt equipment
64	990	Shell Gasoline Additive	R336.1284(i) exempt equipment
67	840,000	Gasoline	fixed cone, internal floating roof
68	60,000	Butane	Pressurized bullet – R33.1284(j) exempt equipment

The facility does not have any operational restrictions based on hours of operation, but is restricted for the amount of gasoline in Tank 42 and transmix loaded.

In addition to the loading rack and tank, the facility operates a groundwater remediation system.

COMPLAINT/COMPLIANCE HISTORY

On March 7, 2014 the facility was issued a violation notice for failure to verify VOC emissions from the vapor collection system within 180 days of issuance of ROP-MI-B2926-2013. This violation was resolved on May 28, 2014 through the verification of VOC emissions from the VRU along with a relative accuracy test audit (RATA) on the VOC CEMS.

During 2010 and 2012, the facility was inspected and was determined to be in compliance with ROP-MI-B2926-2008.

During April 2009, the facility was inspected concurrently with a stack test observation/oversight. At that time the facility was determined to be in compliance with ROP-MI-B2926-2008.

During September 2008, the facility was inspected was determined to be in compliance with ROP-MI-B2926-2008.

During October 2006, the facility was inspected. A Letter of Violation (LOV) was issued for violating Rule 336.1201(1), "Failure to obtain a permit for installing and operating a 32,000 gallon/day oil/water separator (OWS) on the facility." Sunoco responded in a letter that clarified that the OWS was included in the ROP application as an exempt device under R 336.1212(3) (ROP Exemption Rule) and R 336.285(m) (Permit to Install Exemption Rule). Based on the Sunoco's response, the facility was determined to be in compliance with ROP #199600099.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On October 19, 2015 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda conducted an unannounced inspection of Sunoco located at 500 Dix Avenue, Detroit, Michigan. During the inspection, Mr. Anthony Sobocinski, Terminal Operator, provided information and tour of facility operations relating to air quality permits. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, ROP No. MI-ROP-B2926-2013. Sunoco is permitted for the operation of gasoline and distillate storage and loading, along with operation of a groundwater remediation system.

At 1:30 PM, AQD staff arrived onsite and entered the facility. During the opening meeting, the facility operations were discussed. Mr. Sobocinski stated that there have not been any modifications to the existing equipment since the last inspection. According to Mr. Sobocinski, tanker trucks can fill up 24 hours a day, with access to loading racks and arms. Tanker trucks can load during times without terminal employees onsite. A computer controlled lockout system prevents the loading of any tank truck which had not been previously registered as certified vapor tight.

An inspection checklist of records requested to demonstrate compliance with ROP No. MI-ROP-B2926-2013 was provided to the facility. During the opening meeting the items on the inspection checklist was discussed. During the inspection, some records were provided, while the remaining records were agreed to be provided within seven business days.

Following the discussion of operation status, and records review, Mr. Sobocinski provided a tour of the facility. The tour began with observation of storage tanks. There are two primary tank areas at the facility (north and south). Both areas have a sign indicating the tank ID and working capacity of the tank. During the inspection, Mr. Sobocinski stated that Tank 38, which stores gasoline, is currently not in service (scheduled for maintenance and cleaning) and is expected to be back on line sometime in March 2016.

During the inspection the loading system was observed. The system is capable of loading gasoline, transmix, or distillate from loading racks. The loading consists of six bays which load the following product.

Loading Rack Bay	Product
1	ULSD
2	ULSD
3	Transmix
4	Gasoline
5	Gasoline
6	Gasoline

Mr. Sobocinski stated that loading rack bay 6 is currently not in service as Tank 38 exclusively feeds the bay 6 loading rack (as described above Tank 38 is not currently in service).

According to Mr. Sobocinski, prior to tanker loading, the "scully cord" is attached. The scully cord grounds the vehicle and also contains sensors used during loading to monitor the quantities loaded, etc. Following connection of the scully cord, the vapor recovery hose is connected to the tanker. The loading arms (product hose) are then connected to the tanker. Prior to product loading, the driver inputs information into the computer console located at the loading rack. The product is then loaded as appropriate. Written procedures for the operation of all control measures required were posted in accessible, conspicuous locations near the loading devices.

The VRU/VCU was observed during the inspection. During the inspection the VCU was not in operation.

During the inspection the groundwater remediation treatment building was also observed. According to Mr. Sobocinski, the groundwater remediation system was repaired and has been operating efficiently since the fire

that occurred during early 2014.

The requested records were received on November 4, 2015. Additional records were provided on November 18, 2015.

APPLICABLE RULES/PERMIT CONDITIONS

Renewable Operating Permit No. MI-ROP-B2926-2013

The ROP was renewed with an effective date of July 9, 2013. The ROP expiration date is July 9, 2018 with an application due date of January 9, 2018. The Special Conditions (SC) are listed as appropriate. For brevity, permit conditions and the language of federal and state rules have been paraphrased.

SOURCE-WIDE CONDITIONS

SC V.1, VI.1, VI. 4, and IX. 1. **COMPLIANCE.** Shall comply with applicable provisions of BBBB. On July 29, 2015, the facility submitted the reporting required under Subpart BBBB: Semi-Annual Compliance Report & Notification of Compliance Status (NOCS), and Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance for Continuous Emission Monitor (CEM) or Temperature Probe & Recorder Monitoring Systems. The AQD is not the delegated authority for 40 CFR Part 63, Subpart BBBB.

EUDISLOADING-S1

SC VI. 1. **COMPLIANCE.** Shall verify on a quarterly basis all requirements for true vapor pressure (as defined in R336.1120(i)) of all organic compounds stored, pounds per square inch absolute (psia) at actual storage conditions. The facility records physical parameters on a daily basis as provided in the November 4, 2015 submittal.

SC IX. 1 and 2. **COMPLIANCE.** Shall not allow the loading of any organic compound with a true vapor pressure of more than 1.5 psia at actual conditions does not occur from any stationary vessel into any delivery vessel. The true vapor pressure for distillate at varying temperatures is less than 1.5 psia.

EUTRANSLOADING-S1

SC II. 2. **COMPLIANCE.** Transmix used does not exceed 5,000,000 gallons per year. Throughput records indicate that quantities are less than 5,000,000 gallons per year during 2012, 2013, 2014 and 2015. The 2014 MAERS submittal indicates a throughput of 878,844 gallons.

SC VI. 1. **COMPLIANCE.** Transmix quantities used in gallons are recorded on a monthly basis, and on a 12-month rolling time period basis. Monthly throughput 12-month rolling records were provided for 2012, 2013, 2014 and 2015 in the November 4, 2015 submittal.

EUGASLOADING-S1

SC I. 1, III. 3, V. 1 and 2, Appendix 5-S1. **COMPLIANCE.** VOC vapor does not exceed 0.7 pounds for every 1,000 gallons of organic compound loaded. Shall verify the VOC emission rate from the VCS for EUGASLOADING within 180 days of issuance of this permit. The facility conducted performance testing on May 28th, 2014. Results from the performance test indicate a measure emission rate of 0.031 pounds VOC per 1,000 gallons throughput (see facility file for stack test report). The AQD is not the delegated authority for 40 CFR Part 63, Subpart BBBB.

In addition to the stack testing conducted, the facility also operates a CEMS which monitors emissions as percent propane. Percent propane reading can then be converted to pounds VOC per 1,000 gallons of throughput (or mg VOC per L throughput). The facility VRU is designed to shut down all loading at the rack if the emission limit is exceeded. The VRU sounds an alarm if concentrations as measured by the VOC CEMS, exceed 23.5 mg VOC/L gasoline throughput (0.19 pounds VOC per 1,000 gallons throughput).

SC III. 1. **COMPLIANCE.** Gasoline quantities used in gallons are recorded on a monthly basis, and on a 12-month rolling time period basis. Monthly and 12-month rolling records were provided for 2012, 2013, 2014, and 2015 in the November 4, 2015 submittal. The 2014 MAERS submittal indicates a throughput of 42,375,370 gallons.

SC III. 2. **COMPLIANCE.** Shall not allow loading of any organic compound unless the delivery vessel has obtained certification under Rule 627. Each delivery vessel is required to be certified through a tank truck pressure/vacuum test. If a truck is not up to date on certification, they are locked out of the loading system. Example tank certification was provided during the inspection.

SC III. 4. **COMPLIANCE.** Any delivery vessel located at a facility shall be equipped, maintained, or controlled with all of the following.

- a. An interlocking system is used to ensure a vapor-tight collection line is connected before any organic compound is loaded.
- b. A device to ensure that the vapor-tight collection line closes upon disconnection to prevent the release of organic vapor.
- c. A device to accomplish complete drainage before the loading device is disconnected, or a device to prevent liquid drainage from the loading device when not in use.
- d. Pressure-vacuum relief valves that are vapor tight and set to prevent emission of displaced organic vapor during the loading of the delivery vessel.
- e. Hatch openings that are kept closed and vapor-tight during the loading of the delivery vessel.

Items a. through e. were observed while a tanker truck was loading during the inspection.

SC III. 5. **COMPLIANCE.** Written procedures for operation of control measures shall be posted in a conspicuous location. The facility has procedures posted as required.

SC III. 6. **COMPLIANCE.** Shall not operate product loading racks unless the vapor collection system is installed and operating properly. The vapor collection system is installed and is in operation during loading.

SC IV. 1 and 2. **NOT DETERMINED.** VCS shall be designed to prevent VOC vapors collected at one loading rack to pass to another loading rack. VCS shall be designed and operated to prevent gauge pressure in the delivery vessel from exceeding 0.6 psi and to prevent vacuum from exceeding -0.2 psi gauge. The design of the VCS was not evaluated during the inspection.

SC IV. 3. **COMPLIANCE.** A continuous monitoring system shall be installed, calibrated, certified, operated and maintained according to manufacturer's specifications. The facility maintains a CEMS that monitors VOC emissions, recorded as percent propane. A RATA was performed on May 28, 2014. The relative accuracy was determined to be 3.57% which meets the applicable standard of 10%.

SC VI. 1. **COMPLIANCE.** Shall comply with most stringent provisions of 40 CFR 60, Subpart Kb or Subpart XX. The facility is not subject to Subpart XX (constructed prior to December 17, 1980). The facility appears to be in compliance with Subpart Kb as described below.

SC VI. 2 through 6. **COMPLIANCE.** Shall comply with various requirements of Rule 627 (leaks detection, use of vapor collection, etc.). The facility appears to be in compliance with these requirements.

SC VI. 7. **COMPLIANCE.** Gasoline handled to minimize spills, clean up spills, etc. During the inspection the facility appeared to meet these requirements.

SC IX. 1, 2, 3, 4, 5, and 6, Appendix 4-S1. 10 through 13. **COMPLIANCE.** Shall operate the facility such that none of the facility parameters used to calculate the result under 40 CFR 63.420(a)(1) is exceeded in any rolling 30-day period to cause the emission screening factor for bulk gasoline terminals (E_T) to be greater than 1.0. Shall document the methods, procedures, and assumptions supporting the calculations for determining the criteria in 40 CFR 63.420(c). On November 18, 2015, the facility provided E_T calculations on a monthly basis for November 2013 through October 2015. The highest reported E_T occurred during February 2014 at 0.119, which is significantly less than 1.0. Previously, the facility reported E_T on an annual basis, but has since revised the calculation to a monthly basis to demonstrate compliance with the rolling 30-day period requirements.

Appendix 4-S1. 3. **COMPLIANCE.** Daily recordkeeping of throughput for the organic vapor limit. Daily throughput are maintained and kept on file. The facility maintains daily throughput records through the TOPTECH system.

Appendix 4-S1. 4, 5 and 9. **COMPLIANCE.** Records are maintained and on file for the tank truck vapor tightness required under 40CFR 60.502(e)(1)). Records are maintained. An example of tank truck vapor tightness for trucks loaded are provided in the November 4, 2015 submittal. Drivers are not permitted to load (they are shut out of the system) without proper vapor tightness certifications.

Appendix 4-S1. 1, 2, 6, 7. **COMPLIANCE.** Monthly leak inspections are conducted and files are maintained. Monthly leak inspections are conducted and files are maintained.

FGGASOLINETKS-S1 (EUTANK#38, #39, #42, #44, #50, #51, and #67)

SC II. 2. **COMPLIANCE.** Gasoline and ethanol throughput at EUTANK#42 does not exceed 78,456,000 gallons per year. Recorded 12 month rolling throughputs are less than 78,456,000 gallons. The throughput for EUTANK#42 was reported in MAERS at 4,586,353 gallons.

SC IV. 1 and 2, SC IX. 3. **COMPLIANCE.** Shall maintain equipment in compliance with Rule 604. The tanks appear to be operating in compliance with Rule 604. All gasoline storage tanks area equipped with an internal floating roof.

SC VI.1 and IX.1. **COMPLIANCE.** The true vapor pressure (as defined in R336.1120(i)) of all organic compounds stored, in pounds per square inch absolute (psia) at actual storage conditions is monitored and kept on file. The material stored shall not have a vapor pressure greater than 11 psia at actual storage conditions. The facility maintains a table demonstrating the true vapor pressure breakdown based on fuel type and temperature. Storage conditions (temperature, product level, etc.) for each are maintained for each storage tank.

SC VI. 2. **COMPLIANCE.** Monthly throughput material in gallons and annually 12-month rolling for EUTANK#42 are recorded and on file. Monthly and 12-month rolling records are on file.

SC VI. 3. **COMPLIANCE.** Records are on file that show the dimensions of each storage vessel and an analysis that show the capacity of the storage vessel. The facility maintains a master database of all tanks dimensions.

SC IX. 2. **COMPLIANCE.** Shall not equip any storage tank with an external floating roof. The facility currently does not have tanks equipped with external floating roofs.

FGDISTALLATETKS-S1 (EUTANK #43, EUTANK#49)

SC III.1. **COMPLIANCE.** Shall not store product with a true vapor pressure of more than 1.5 psia at actual storage conditions. The true vapor pressure for distillate at varying temperatures is less than 1.5 psia.

SC VI. 1. **COMPLIANCE.** The temperature of the stored product is recorded on a daily basis and kept on file. Temperature is recorded on a daily basis and is file. An example of a temperature logs was provide in the November 4, 2015 submittal.

GROUNDWATER REMEDIATION SYSTEM (EU-0033) – S2

SC I. 1. and 2. **COMPLIANCE.** VOC emission limits of 1.4 tons per year (based 12-month rolling time period) and 0.31 lb per hour are not exceeded. The 2014 submittal (received February 5, 2015) demonstrates that VOC emissions are significantly less than emission limits.

SC I. 3. **COMPLIANCE.** Benzene emission limits of 410 lbs per year, based on a 12-month rolling time period is not exceeded. The 2014 submittal demonstrates that benzene emissions are significantly less than emission limits.

SC I. 4. **COMPLIANCE.** Naphthalene emission limits of 250 lbs per year, based on a 12-month rolling time period is not exceeded. The 2014 submittal demonstrates that naphthalene emissions are significantly less than emission limits.

SC V.1, VI. 1, 2, and 3. **COMPLIANCE.** Shall keep records of flow rate, total VOC concentration, benzene concentration, and naphthalene concentration of the air stripper influent and effluent water streams. Records

are maintained and included in the 2014 submittal. The facility typically reports the 12 month limits on an annual basis only (not 12-month rolling). AQD has accepted this reporting as the emissions are significantly less than emission limits.

SC VII.1. **COMPLIANCE.** The stack requirements for the groundwater treatment system were not measured during the inspection. Based on visual appearance, the stack appears to meet the stack requirements

Federal and State Requirements

40 CFR 60, Subpart Kb. **COMPLIANCE.** The date of modification and tank capacity is large enough that, for a terminal throughput of more than 476 barrels/day (75,700 liter/day), emission unit EUTANK#42 is subject to this regulation. The other emission units at the facility were constructed prior to and not modified after July 23, 1984. EUTANK# 42 is equipped with an internal floating roof. The facility appears to be in compliance with the applicable requirements of 40 CFR, Subpart Kb.

40 CFR 60, Subpart XX. **NOT APPLICABLE.** EUGASLOADING at the stationary source is not subject to the New Source Performance Standards for Bulk Gasoline Terminals, promulgated in 40 CFR Part 60, Subpart XX as the emission unit was constructed prior to December 17, 1980. However, several sections of Subpart XX are included in the ROP as they were included in the ROP renewal application, and also as a best management practice. The following sections of Subpart XX are included in ROP Appendix 4-1: 60.502(e), 60.505(a), 60.505(c), 60.505(d), and 60.505(f). Additionally 60.502(d) is included in EUGASLOADING SC VI. "Design/Equipment Parameters".

40 CFR 63, Subpart R. **COMPLIANCE.** Shall operate the facility such that none of the facility parameters used to calculate the result under 40 CFR 63.420(a)(1) is exceeded in any rolling 30-day period to cause the value E_T to be greater than 1.0. Shall document the methods, procedures, and assumptions supporting the calculations for determining the criteria in 40 CFR 63.420(c). The facility has provided E_T calculations yearly. The most recent submittal dated November 24, 2014 indicates an E_T value of 0.107.

40 CFR 63, Subpart BBBBBB. **COMPLIANCE.** On July 13, 2012, the facility submitted the reporting required under Subpart BBBBBB: Semi-Annual Compliance Report & Notification of Compliance Status (NOCS), and Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance for Continuous Emission Monitor (CEM) or Temperature Probe & Recorder Monitoring Systems.

Exemptions

The OWS located at the facility appears to be exempt per Rule 285(m); Lagoons, process water treatment equipment, wastewater treatment equipment, and sewage treatment equipment.

The pressurized horizontal butane tank at the facility appears to be exempt per Rule 284(j). Online literature indicates that butane has a boiling point of -1 to 1 degree Celsius (°C).

The natural gas furnace used for office heat at the facility appears to be exempt per Rule 282(b)(i).

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

Not applicable. All lots are paved.

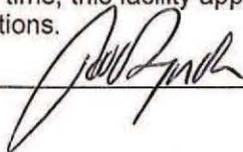
MAERS REPORT REVIEW:

The 2014 MAERS report was timely and complete. A minor change to the natural gas throughput for the facility furnace was made during AQD review.

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with ROP MI-B2926-2013 and federal and state regulations.

NAME



DATE

11/24/15

SUPERVISOR

JK