

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

B292625264

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: Alyssa Laird, Environmental Specialist		ACTIVITY DATE: 05/28/2014
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: 2014 Targeted Inspection and Stack Test Observation		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection

INSPECTED BY: Todd Zynda, AQD

PERSONNEL PRESENT: Alyssa Laird, Environmental Specialist; Adam Stoner, Terminal Manager, Terry E. Dufault, 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 Severstal North America 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 0.7 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 6 AM to 4 PM.

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 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. The facility operates a 60,000 gallon horizontal butane tank along with the below listed tanks.

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 Motiva Gasoline Additive 1118	R336.1284(i) exempt equipment
67	840,000	Gasoline	fixed cone, internal floating roof

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 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

STACK TEST OBSERVATION AND INSPECTION NARRATIVE

On May 28, 2014 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda conducted a level 2 unannounced inspection of Sunoco located at 500 Dix Avenue, Detroit, Michigan. During the inspection, Ms. Alyssa Laird, Environmental Specialist, and Mr. Adam Stoner, Terminal Manager provided information and tour of facility operations relating to air quality permits. The inspection was conducted in conjunction with a VRU VOC emission testing and relative accuracy test audit (RATA). 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 6:15 AM, AQD staff arrived onsite and entered the facility. Upon arrival, facility personnel were informed that a facility compliance inspection would be conducted in addition to the planned VRU emission testing and RATA.

Stack Test Observation

VOC emission testing and RATA were completed by Aereon. Aereon staff onsite were Mr. Tony Fenton and Mr. Jim Stamm. Mr. Mark Dziadosz, MDEQ, AQD, Technical Programs Unit (TPU) observed the testing, and methodology throughout the duration of the test. The VRU VOC emission testing began at 7:52AM with the loading of gasoline to the first tanker truck of the day. During the test, Mr. Stamm monitored trucks for leaks using a photoionization detector (PID). During the entirety of the test, no leak was detected greater than 500 parts per million (ppm) as methane. Due to the lack of trucks filling at the facility, and the 80,000 gallon gasoline loaded requirement, the facility opted to load a 9,000 gallon and 13,400 gallon tanker truck, and then unload at the facility to assure that the 80,000 gallon requirement was met. In addition to the stack testing conducted, the instrument used to perform the RATA was also observed. The facility continuously records VOC emissions as percent propane (using a Yokogawa data logger) prior to the outlet of the VRU. The testers also are recording continuous emissions from the outlet using a Yokogawa data logger. The two data sets will be compared after the test is completed and summarized in the RATA report. Based on field comparison of recorded numbers during the test, both data loggers appeared to be recording similar percent propane values.

During the 6 hour test, more than 92,000 gallons of gasoline were loaded to tanker trucks. The test concluded at 1:52 PM. See Attachment A for the AQD TPU field observation report for the stack testing and RATA observation.

Facility Inspection

The facility inspection began at approximately 7:30 AM. During the opening meeting, the facility operations were discussed. Mr. Stoner and Ms. Laird indicated that there have not been any modifications to the existing equipment since the last inspection. The facility has three employees and operates 6 AM to 4 PM, Monday through Friday. 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 (Attachment B) of records requested to demonstrate compliance with ROP No. MI-ROP-B2926-2013 was provided to the facility. During the opening meeting each item on the inspection checklist was discussed. During the inspection, some records were provided, while the remaining records were agreed to be provided within one week. Additionally during the opening meeting, the voiding of Wayne County Installation Permits was discussed. The below permits will be voided as the equipment is either exempt equipment or has previously been incorporated into the ROP.

Wayne County Installation Permit Number	Description	Permit Void Explanation
C-6107 through C-6109	October 26, 1982: Secondary seals on three gasoline storage tanks (Tanks No. 38, 39, and 51)	Permit exempt equipment - Rule 285(d)
C-6128	January 1, 1983: John Zink Vapor Recovery Unit	Equipment no longer in operation.
C-9220	February 21, 1991: 10,000 gallon horizontal storage tank	Permit exempt equipment - Rule 284(i)
C-11177	April 19, 1996: Installation of internal floating roof on Tank No. 42	Conditions have been incorporated into ROP.

Following the discussion of operation status, and records review, Mr. Stoner and Mr. Laird provided a tour of the facility. The tour began with observation of storage tanks. A site map was provided outlining storage tank locations (Attachment C). 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. Stoner stated that Tank 40, which formerly stored kerosene, has not been in use for many years.

Throughout the inspection and stack test observation, 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

The loading of several tanker trucks were observed during the inspection. 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 throughout the observation of the stack test. During the test the VCU was not in operation. The VRU emissions were routed to the testing trailer. During the inspection Sunoco staff demonstrated the VRU computer monitoring in the terminal control room.

During the inspection the groundwater remediation treatment building was also observed. Staff at the facility stated that the remediation system is likely not operational, due a fire that occurred at the facility storage building on May 22, 2014 (see AQD Detroit Office file for additional information regarding the fire). The container that houses the groundwater remediation system appeared to be severely damaged from heat, as it was located

immediately adjacent to the storage building that is was damaged by fire. Facility staff stated that the consultant (Cardno ATC) has not come out to evaluate the extent of damage on the system.

Ms. Laird provided the requested records on June 11, 20014 via email (Attachment D).

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.

EUDISLOADING

SC VI. 1. **IN 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. (Attachment E).

SC IX. 1. **IN 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 pressures for distillate at varying temperatures are less than 1.5 psia (Attachment E).

EUTRANSLOADING

SC II. 2. **IN 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 2013 (Attachment F).

SC VI. 1. **IN 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 (Attachment F).

EUGASLOADING

SC I. **IN COMPLIANCE/PENDING.** VOC vapor does not exceed 0.7 pounds for every 1,000 gallons of organic compound loaded. 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 exceed 23.5 mg/L gasoline (0.19 pounds per 1,000 gallons of throughput). A performance test was conducted on May 28, 2014. An update will be provided on the emissions testing once the summary report is received and review.

SC III. 1. **IN 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 (Attachment F).

SC III. 2. **IN 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 (Attachment G).

SC III. 4. **IN 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. **IN COMPLIANCE.** Written procedures for operation of control measures shall be posted in a conspicuous location.

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

SC IV. 3. **IN 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.

SC V. 1. **NON COMPLIANCE - RESOLVED.** Shall verify the VOC emission rate from the VCS for EUGASLOADING within 180 days of issuance of this permit. The facility failed to verify emissions from the VCS within 180 days of the issuance of ROP-MI-B2926-2013. A violation notice was issued on March 17, 2014. The violation notice was resolved through the performance testing conducted on May 28th, 2014.

SC IX. 1. and 2. **IN 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). The facility has provided E_T calculations yearly. The most recent submittal dated November 6, 2013 indicates an E_T value of 0.120 (Attachment H).

Appendix 4-1. 3. **IN 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 4-1. 5. **IN 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 is found in Attachment G. Drivers are not permitted to load (they are shut out of the system) without proper vapor tightness certifications.

Appendix 4-1. 6. **IN COMPLIANCE.** Monthly leak inspections are conducted and files are maintained. Monthly leak inspections are conducted and files are maintained (Attachment I).

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

SC II. 2. **IN 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 (Attachment F).

SC VI. 1. **IN 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 facility maintains a table demonstrating the true vapor pressure breakdown based on fuel type and temperature (Attachment E).

SC VI. 2. **IN 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 (Attachment F).

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

FGDISTALLATETKS (EUTANK #43, EUTANK#49)

SC VI. 1. **IN 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 is found in (Attachment E).

GROUNDWATER REMEDIATION SYSTEM (EU-0033)

SC I. 1. and 2. **IN 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 2013 submittal demonstrates that VOC emissions are significantly less than emission limits.

SC I. 3. **IN COMPLIANCE.** Benzene emission limits of 410 lbs per year, based on a 12-month rolling time period is not exceeded. The 2013 submittal demonstrates that benzene emissions are significantly less than emission limits.

SC I. 4. **IN COMPLIANCE.** Naphthalene emission limits of 250 lbs per year, based on a 12-month rolling time period is not exceeded. The 2013 submittal demonstrates that naphthalene emissions are significantly less than emission limits.

SC VI. 2. **IN 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 2013 submittal.

Federal and State Requirements

40 CFR 60, Subpart Kb. **IN 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 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. The facility appears to be in compliance with the applicable requirements of 40 CFR, Subpart Kb.

40 CFR 63, Subpart R. **IN 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 6, 2013 indicates an E_T value of 0.120.

40 CFR 63, Subpart BBBB. **IN COMPLIANCE.** On July 13, 2012, 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.

Rule 336.1901. **IN COMPLIANCE.** Measures are in place that ensure compliance with Rule 336.1901 in handling gasoline containing equipment to minimize releases to the atmosphere.

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.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

Not applicable. All lots are paved.

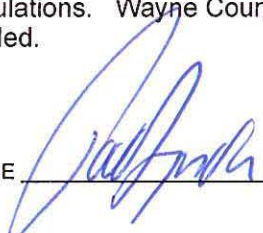
MAERS REPORT REVIEW:

The 2013 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-2008-B2926-2013 and federal and state regulations. Wayne County Installation Permits C-6107 through C-6109, C-6128, C-9220, and C-11177 will be voided.

NAME



DATE

6/16/14

SUPERVISOR

W, M