DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B920664620

FACILITY: Sunoco Partners Marketing & Terminals LP - Romulus		**SRN / ID:** B9206
LOCATION: 29120 WICK RD, ROMULUS		**DISTRICT:** Detroit
CITY: ROMULUS		**COUNTY:** WAYNE
CONTACT: Jared Everitt ,		**ACTIVITY DATE:** 09/16/2022
STAFF: Katherine Koster	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY2022 Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection

INSPECTED BY: Katie Koster, AQD

PERSONNEL PRESENT: Jared Everitt, Sunoco Corporate; Ben Hall, Vapor technician

CONTACT INFO: 313-570-5194 (Jared Everitt); jared.everitt@energytransfer.com

FACILITY BACKGROUND

Energy Transfer (previously Sunoco Logistics, Sunoco Partners Marketing and Terminals, L.P. Romulus Terminal) is located northeast of the intersection of Middlebelt and Wick Roads in Romulus. This facility was formerly owned and operated by RKA Petroleum until it was purchased by Sunoco in September 2009. The facility is a bulk terminal for gasoline, ethanol, jet fuels, diesel fuel, and additives. The facility is capable of operating 24 hours per day, 365 days per year.

COMPLAINT/COMPLIANCE HISTORY

Since Sunoco become the owner of the facility, no violation notices have been issued.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING LOVs

None

INSPECTION NARRATIVE

AQD inspector, Katie Koster, arrived at the Sunoco facility on September 16, 2022, at 10:00 a.m. I met with Mr. Jared Everitt, Environmental Specialist and Ben Hall, Zink technician. We started the inspection in a conference room where we discussed the records that I requested via email.

The facility receives various fuels through pipelines and loads them into tank trucks using a loading rack. The various fuels are dispensed into tanker trucks via a 5 bay loading rack. There are five arms per bay. Additives are added at the rack; there are two gas additives and three diesel additives. No gasoline is loaded at Lane 5; distillate only. Jet fuel is only loaded in the last two racks. The loading rack requires control equipment in the form of a Vapor Recovery Unit (VRU). There are two VRU's as a new one was installed and the old one was retained for backup. Each unit consists of two regenerative carbon beds alternating between adsorbing and desorbing and is a John Zink Vapor Recovery Unit. The facility is allowed per PTI 386-97C to operate a portable Vapor Combustion Unit (PVCU) when the VRU is down for maintenance although it has been removed from the site as there are two VRU's now. Emissions from the VRU are monitored continuously by a continuous emissions monitoring system (CEMS) which records VOC emissions as percent propane.

Unlike RKA, Sunoco does not own the delivery vessels. As such, the Romulus terminal is not involved in performing vapor tightness testing. Truck tanker vapor tightness certifications are submitted by the fuel carriers to the Sunoco central office in Pennsylvania and are electronically available to any of its terminals.

Next, Sunoco staff accompanied me about the facility. The loading rack is five lanes with five to six arms per lane. Additional arms were added when the permit was modified in 2007 to allow for sidestream blending of fuels, as opposed to sequential. According to the facility, no changes have been made to the rack since my last visit. I visually observed the loading arms and VRU hoses at each loading bay. They appeared to be in good condition; absent of any cracks or holes. A small booth is present at each bay. In the booth, truckers insert a loading card which verifies that the trucker has all proper certifications, such as tightness testing, before loading is authorized and written procedures for loading are posted. While the facility is allowed to load some products without the VRU engaged under PTI 386-97B, Sunoco requires all loading to be conducted through the VRU. The rack will not even operate without the VRU in use. No loading was occurred. Staff noted that the busiest times are in the early morning or late afternoon which I was not aware of until now. This is helpful information for future inspections.

We viewed both VRU units which are located next to the loading rack. Vacuum gauges and temperatures throughout the bed are the main indicators that the VRU is operating properly. CMS reading of 0.64% will shut down the unit; 0.45 will start cleaning/cycling for VRU 2, 1.91% and 1.43% are the set points, respectively, for VRU1. Just topped off the VRU will carbon, 3-millimeter pellets. 200F will shut down unit.

No loading was occurring so I did not record any operating parameters. In general, when the Zink technician assesses the VRU he measures whether the beds are holding vacuum for 15 minutes and that the temperatures throughout the bed (top, middle, and bottom) at the start and end of the cycle are within 15 degrees of each other. The VRU alarms for high T, high pressure and product level. A CEMS installed per the area source MACT BBBBBB. According to the facility, there is a main CEMS and a backup CEMS. The VRU will shut down if there is a high 1 hour CEMS reading of % C3H8.

Other items of note:

- Tank 1 was the most recent tank to have major repair work. There are two main lines that service the facility; Buckeye and Sun Pipeline. 2 other smaller lines.
- Wolverine line has been plugged and blanked.
- Transmix tank (Tank 104) is out of service
- 5 small pencil tanks – there is one supplier of diesel
- Rail loading – 12 spots; north spur offload ethanol; south spur export diesel to Canada but this contract is almost complete.

APPLICABLE RULES/PERMIT CONDITIONS

Facility is operating under opt out permit 386-97C issued May 8, 2018 (Conditions are paraphrased for brevity). There are FGFACILITY wide limits on VOCs, individual HAPs and total HAPs.

EU-LOADRACK

I. <u>EMISSION LIMITS</u>

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Compliance determination
1. VOC	24.8 tpy	12-month rolling time period as determined	EU-LOADRACK emissions through VRU#1,	From Jan 2021 through August 2022, highest 12

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Compliance determination
		at the end of each calendar month.	VRU#2, and PVCU	month rolling was 2.42 tpy in May 2021
2. VOC	30 mg / L of organic compounds loaded	Test Protocol*	EU-LOADRACK emissions through the VRU#1 or PVCU	Test conducted and facility passed
3. VOC	10 mg / L of organic compounds loaded	Test Protocol*	EU-LOADRACK emissions through the VRU#2	Test conducted and facility passed
4. VOC	16.5 tpy	12-month rolling time period as determined at the end of each calendar month.	EU-LOADRACK fugitive emissions	From Jan 2021 through August 2022, highest 12 month rolling was 7.8 tpy in May 2021
5. VOC	44 tpy	12-month rolling time period as determined at the end of each calendar month.	FG-LOADING	From Jan 2021 through August 2022, highest 12 month rolling was 10.3 tpy in May 2021

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Compliance determination
1. Gasoline[a]	300,000,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	EU-LOADRACK	NA. Stack height has been raised.
2. Gasoline[b]	400,000,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	EU-LOADRACK	For 2021, 156,335,595 gallons was the 12 month rolling value in December

Material	Limit	Time Period / Operating Scenario	Equipment	Compliance determination
3. Jet and Kerosene	100,000,000 gallons per year combined	12-month rolling time period as determined at the end of each calendar month	FG-LOADING	For 2021, 16,053,757 gallons (through truck loading rack and pencil tank loading)
4. Diesel, #2 Fuel Oil, and Biodiesel	500,000,000 gallons per year combined	12-month rolling time period as determined at the end of each calendar month	FG-LOADING	For 2021, 37, 481,950 gallons
5. Ethanol, including ethanol blended with gasoline	90,000,000 gallons per year	12-month rolling time period as determined at the end of each calendar month	EU-LOADRACK	For 2021, 12,595,970 gallons was the 12-month rolling value in December.

a. Gasoline throughput until both of the following have occurred: VRU#2 is installed, and the stack height of VRU#1 is increased to at least 26 feet above ground.

b. Gasoline throughput on and after until both of the following have occurred: VRU#2 is installed, and the stack height of VRU#1 is increased to at least 26 feet above ground.

III. Process/Operational Limits

DID NOT EVALUATE. 1,2 and 3 are related to loading product into trucks and vapor collection system. No loading was ocurring during the inspection.

4. IN COMPLIANCE. Malfunction abatement plan is attached. According to facility contact, no changes have been made.

5. IN COMPLIANCE. According to facility, no gasoline or ethanol has been loaded through the pencil rack or rail rack.

IV. DESIGN/EQUIPMENT PARAMETERS

1. IN COMPLIANCE. Control devices appear to be maintained properly. The permittee shall not load any product into any truck in EU-LOADRACK unless VRU#1, VRU#2, or PVCU is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining and operating each control device in accordance with the malfunction abatement plan.

V. TESTING

1. IN COMPLIANCE. Testing was conducted on June 5, 2019 for VRU #1 and #2.

2. NOT APPLICABLE. AQD has not required this testing.

VI. MONITORING/RECORDKEEPING

1. IN COMPLIANCE. Monthly checks per Subpart XX are conducted as required by the regulation. See attached.

3. IN COMPLIANCE. Records are maintained as required.

Material	Emission Unit/FG-LOADING	Applicable Requirement
a. Gasoline[a]	EU-LOADRACK	R 336.1205(3), R 336.1225 R 336.1702(a)
b. Gasoline[b]	EU-LOADRACK	R 336.1205(3), R 336.1225 R 336.1702(a)
c. Jet and Kerosene	FG-LOADING	R 336.1205(3), R 336.1225 R 336.1702(a)
d. Diesel, #2 Fuel Oil, and Biodiesel	FG-LOADING	R 336.1205(3), R 336.1225 R 336.1702(a)
e. Ethanol, including ethanol blended with gasoline	EU-LOADRACK	R 336.1205(3), R 336.1225 R 336.1702(a)
a. Gasoline throughput until both of the following have occurred: VRU#2 is installed and the stack height of VRU#1 is increased to at least 26 feet above ground. b. Gasoline throughput on and after until both of the following have occurred: VRU#2 is installed and the stack height of VRU#1 is increased to at least 26 feet above ground.		

4. IN COMPLIANCE. Records are maintained as required. See attached.

The permittee shall keep the following information on a monthly and 12-month rolling time period basis for FG-LOADING:

a) Controlled VOC emission calculations for product loading (from EU-LOADRACK exhausted through VRU#1, VRU#2, and PVCU).

b) Uncontrolled VOC emission calculations for product loading through EU-PENCILRACK and EU-RAILRACK.

c) Fugitive VOC emission calculations for EU-LOADRACK using an emission factor based on current gasoline distribution facilities loading rack collection system emission factors.

5. IN COMPLIANCE. Records for 2021 and 2022 YTD are attached. The permittee shall keep, on a monthly basis, separate records of the hours of product loading when VRU#2 is the primary control device, when VRU#1 is the primary control device, and when the PVCU is the primary control device. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.

6. IN COMPLIANCE for b, c, and d. a. was not evaluated. See attached.

The permittee shall keep records of the following:

a) Compliance with the appropriate leak test for each delivery vessel loaded.

b) Part replacements, repairs and maintenance for the loading rack control devices as specified in the malfunction abatement plan (MAP).

c) All VRU and PVCU malfunctions or failures.

d) All VRU and PVCU performance and emission test results.

7. IN COMPLIANCE with f. Did not evaluate a -e related to tank truck vapor tightness.

f) The permittee shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least three years.

8. IN COMPLIANCE. System was observed during the inspection. The permittee shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processing systems.

9. IN COMPLIANCE. Records demonstrated during the inspection. The permittee shall keep the records of the continuous monitoring system data as specified in 40 CFR 63.11094(f).

VIII. STACK/VENT RESTRICTIONS

IN COMPLIANCE. VRU #1 stack was increased to 26 ft in 2018. VRU #1 is only used for backup purposes. VRU#2 stack is taller than VRU#1. The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)
1. SV-VRU#1	8	16[a]
2. SV-VRU#1	8	26[b]
3. SV-VRU#2	12	30

a. This height requirement applies before the stack heights are increased to at least 26 feet.

b. This height requirement applies after the stack heights are increased to at least 26 feet.

DID NOT EVALUATE TANKS – FGIFRTANKS and FGFIXEDTANKS. Will be evaluated during next inspection cycle.

FGFACILITY

I. EMISSION LIMITS

IN COMPLIANCE. See attached. VOC limit is 68.8 at FGFACILITY. For 2021, 19.09 tpy for VOC was the highest 12 month rolling value in August. Each HAP is 8.9 tpy; total HAP 22.4. For 2021, total haps was 0.91 tpy in August 2021.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. DID NOT EVALUATE. AQD does not have delegation of this MACT. The permittee shall not operate FGFACILITY unless all applicable provisions of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities as specified in 40 CFR Part 63 Subparts A and Subpart BBBBBB are met.

VI. MONITORING/RECORDKEEPING

1 and 2 IN COMPLIANCE. Records were provided and are attached.

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Butane storage tank was evaluated during the prior inspection. The size is 60,000 gallons. Facility is applying 336.1284(j) as it claims the boiling point is 0 Celsius or lower. MSDS's were submitted as proof during last inspection and are in the facility file.

No generator is on site according to terminal employees.

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NSPS/NESHAP

Did not evaluate other regulations outside of permit conditions.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS

N/A. All lots are paved.

MAERS REPORT REVIEW

Facility submitted MAERS on time. No changes were made.

FINAL COMPLIANCE DETERMINATION

This facility appears to be in compliance with conditions evaluated in this report.

NAME KATHERINE KOSTER DATE 11/4/2022 SUPERVISOR APRIL WENDLING 11/07/2022