

**CITY OF PHILADELPHIA**  
**Department of Public Health**  
**Environmental Protection Division**  
**Air Management Services**

**InterOffice Memo**

**To:** File

**From:** Rahel Gebrekidan

**Date:** October 7, 2022

**Subject:** Title V Operating Permit (TVOP) Summary for PESRM- Schuylkill River Tank Farm (SRTF)

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**Company Description:**

The Philadelphia Energy Solutions Refining and Marketing LLC (PESRM) - Schuylkill River Tank Farm (SRTF) is located at 70th & Essington Ave., Philadelphia, PA 19145. The facility contact in regard to the TVOP is Stephanie Eggert (215) 339-2366.

PESRM owns the SRTF located at 70th & Essington Avenue, Philadelphia. SRTF operated under TVOP No. OP16-00027, which was issued June 7, 2017 and will expire on June 7, 2022.

All refining operations at the PESRM refinery stopped after a June 2019 accident and subsequent bankruptcy. The SRTF tank farm and terminal operations continued through August 31, 2021, at which time the SRTF was placed into a non-operational state. PESRM had contracted with Host at Philadelphia LLC (Host) to operate the SRTF from June 26, 2020 through December 1, 2021. AMS issued an administratively amended TVOP OP20-00050 on April 15, 2021 for transfer of operational control from PESRM to Host Philadelphia LLC. Per the TVOP administrative amendment permit OP21-00057 dated November 10, 2021, operational control of the SRTF has been transferred back to PESRM effective December 1, 2021. The SRTF is currently in a non-operational state; it is possible that the SRTF may be returned to active operations at a future time.

On October 16, 2020, Host submitted an application to the City of Philadelphia – Air Management Services (AMS) to modify its existing TVOP. The basic thrust of the request to modify the TVOP was to update the TVOP to reflect the more recent operations and to formally incorporate air permits related to some storage tanks, marine loading, and railcar loading/unloading process from PESRM TVOP. On November 16, 2021, PESRM submitted a renewal application to be processed concurrently with the October 16, 2020 TVOP modification. With the two applications, PESRM requested a significant modification (in conjunction with the TVOP renewal). These proposed changes include the following:

- Renewing the TVOP;
- Transferring some storage tanks, marine loading, and railcar loading/unloading process from PESRM TVOP, thereby formally incorporating air permits related to the Girard Point Docks, Point Breeze Docks, the North and South Rail Yards and pipelines into the

SRTF TVOP (these operations were previously associated with the Title V permit for the former refinery (Title V Operating Permit No. V06-016);

- Updating the Facility Inventory List;
- Updating Permit contacts and responsible official of the facility;
- Updating product descriptions;
- Updating LDAR requirements to remove references to the refinery LDAR program;
- Group 2 transfer rack requirements update;
- Updating conditions superseded by RACT Plan Approval IP16-000269,
- Removing references to Global Consent Decree No. 05-02866 for any former refinery units, and
- Removing reference to shutdown units.

### **Applicability for Regulations:**

The facility is a major stationary source as defined in Title I, Part D of the Clean Air Act Amendments due to the facility's potential to emit Volatile Organic Compounds (VOC), NO<sub>x</sub>, HAP, CO, SO<sub>x</sub> and PM. The facility is therefore subject to the Title V operating Permit requirements adopted in 25 Pa Code §127, Subchapter G.

The SRTF is an existing petroleum bulk terminal operating under SIC Code 5171 – Petroleum Bulk Stations and Terminals. The sources transferring from the former Philadelphia Refinery were previously operated under SIC Code 2911 – Petroleum Refining. In July 2019, the PESRM refinery permanently ceased refining operations and synthetic organic chemical manufacturing (SOCMI). All sources to be transferred to the STRF will be re-classified under SIC Code 5171 for terminal and logistics operations. As such, federal standards which previously applied to petroleum refineries and SOCMI operations are no longer applicable.

The former refinery and the SRTF are no longer considered one facility under Title V, NSR, and PSD regulations since the former refinery's SIC code has changed to 1795 – Wrecking and Demolition Work to reflect the current operational status of the facility. The SIC code of the SRTF will remain 5171 – Petroleum Bulk Stations and Terminals.

### ***Transferred Source Applicability***

#### **Marine loading equipment**

Barges are loaded with liquid petroleum at the Girard Point and Point Breeze docks. Loading of petroleum with a Reid vapor pressure over 4.0 psi is not allowed at the Point Breeze dock. Volatile Organic Compound (VOC) vapors displaced from barges associated with loading of petroleum with a Reid vapor pressure over 4.0 psi is controlled by the Girard Point Marine Vapor Control Unit, a thermal oxidizer, with a VOC destruction efficiency of 98% or greater. The potential applicability of marine loading operations under 40 CFR 63 Subpart Y is discussed below.

#### **Butane Railcar Loading/Unloading**

The butane railcar loading/unloading area has 36 railcar loading/unloading stations and an n-butane bullet that allows transfer of butane to/from the SRTF through pipelines for storage in spheres SR 73-78. This operation is currently not being used for butane loading/unloading and

when reactivated will require the installation of a vapor control system to manage butane released from transfer hoses. The vapor control system will require a permit prior to operation.

### ***Applicable Regulations***

#### 40 CFR 63 Subpart R

40 CFR 63 Subpart R applies to major sources of HAPs with gasoline bulk terminal operations. Subpart R contains standards for loading racks (truck and railcar), storage tanks, and equipment leaks. The SRTF is an existing facility subject to this regulation for gasoline storage tanks (Group 01 and Group 04 in the SRTF Title V permit) and fugitive emissions (Group 05 in the SRTF Title V permit).

The following internal floating roof tanks which are being transferred from the PESRM refinery Title V permit to SRTF will be subject to the Subpart R requirements in Group 01 of the Title V permit:

P-025 (GP), T-1205, IFR >40 MGal, Petroleum Liquids  
P-026 (GP), T-1208, IFR >40 MGal, Petroleum Liquids  
P-029 (GP), T-1214, IFR >40 MGal, Petroleum Liquids  
P-163 (GP), T-1209, IFR >40 MGal, Petroleum Liquids  
P-002 (GP), T-1216, IFR >40 MGal, Petroleum Liquids  
P-003 (GP), T-1217, IFR >40 MGal, Petroleum Liquids  
P-165 (GP), T-1212, IFR >40 MGal, Petroleum Liquids

P-637 (GP) – Butane Railcar Unloading at Girard Point South Tank Field 40 CFR 63 Subpart R is not applicable since Gasoline is not a permitted material at this rack.

Thus, Subpart R requirements will continue to be applicable to storage tank and fugitive emissions at the SRTF.

#### 40 CFR Part 63 Subpart Y

Per 40 CFR 63.560, 40 CFR 63 Subpart Y applies to existing and new sources with emissions of 10 or 25 tons (marine tank vessels loading operations at all loading berths), as that term is defined in 40 CFR 63.561, except as specified in paragraph (d) of 40 CFR 63.560. Marine loading equipment including barge loading operations at the Girard Point Wharf (P-130) and Point Breeze marine barge loading (P-636) will be transferred from Group 17 of the PESRM refinery Title V permit to the SRTF Title V permit. HAP emission from marine loading operations do not exceed the major source thresholds as outlined in 40 CFR 63.561. However, the SRTF will continue to comply with the monitoring and recordkeeping requirements to document compliance with the Subpart Y exemption which are outlined in Group 17 of the PESRM Title V permit.

#### AMR V Section XIII

The Permittee shall utilize a fugitive emission LDAR program for all valves, pumps, flanges, and compressors in VOC service per presumptive RACT requirement. Equipment leaks are subject to AMR V Section XIII. In accordance with AMR V Section XIII.D-the facility must conduct a monitoring program for equipment leaks per the requirements in the current Title V permit.

For any source not covered under an existing LDAR program, monitoring shall be conducted on a quarterly basis for equipment in gaseous service and on an annual basis for equipment in liquid service.

#### Other

The Propane Loading and Butane Loading/Unloading are applicable to the leak requirements of AMR V, Section XIII. Propane loading has a VOC limit of 2.6 tons per rolling 12-month period from Installation Permit No. IP16-000268. Compliance is monitored based on AP-42 or other AMS-approved emission factor and must account for any malfunctions and bypasses.

The flare must comply with the SO<sub>2</sub> limits of AMR III, Section II.B and the presumptive RACT requirements of 25 Pa Code Section 129.93(c) (install and operate in accordance with manufacturer's specifications).

Internal combustion engines are applicable to PM limits from 25 Pa Code Section 123.13 and CO limits from AMR VIII. Fire Pumps FP-20 and FP-21 have additional emission limits from NSPS and NO<sub>x</sub> limits from installation permits. Emergency units are limited in their testing during the ozone season by AMR XV.

Girard Point Barge Loading of materials with an RVP of 4 psi or greater must vent to a Thermal Oxidizer. The Thermal Oxidizer must control VOC emissions by 98% or to an outlet concentration of 20 ppmv or less. VOC emissions from the loading of materials with an RVP of less than 4 psi are limited to 13.9 tons per rolling 12-month period. These conditions come from RACT Plan Approval IP16-000269. The Permittee is required to continuously monitor and record the Thermal Oxidizer temperature. A stack test is required on the Thermal Oxidizer within 90 days of first operation after the effective date of the operating permit and every 5 calendar years.

Point Breeze Marine Barge Loading shall not load any VOC materials with a Reid Vapor Pressure of 4 psi or greater. VOC emissions from Point Breeze Marine Barge Loading shall not exceed 25.99 tons per rolling 12-month period. These conditions come from RACT plan approval IP-16000269.

#### Plan Approvals and Installation Permits

AMS issued installation permits and plan approval to SRTF in the last five years. PESRM requests these Installation permits, PA and GP to be incorporated in the TVOP.

## Compliance Summary

At this time, there is no outstanding non-compliance pursuant to the TVOP at the SRTF or former refinery operations being transferred into the SRTF TVOP.

### SECTION E. NON APPLICABLE REQUIREMENTS

AMS has determined that the following regulations are not applicable to the facility:

Pennsylvania Regulations:

25 Pa Code §129.55 – Petroleum refineries

25 Pa Code §129.59 – Bulk terminals

25 Pa Code §129.60 – Bulk plants

25 Pa Code §129.61 – Small Gasoline Tanks

25 Pa Code §129.62 – General standards for bulk gasoline terminals, bulk gasoline plants, and small gasoline storage tanks

25 Pa Code §129.82 – Control of VOC from gasoline dispensing facilities (Stage II)

NSPS Regulations (proposal/effective date):

40 CFR 60 Subpart D – Fossil fuel steam gen. units (8/17/71)

40 CFR 60 Subpart D(a) – Fossil fuel electric utility boilers (9/18/78)

40 CFR 60 Subpart D(b) – Indus./commer./institutional steam gen. units (6/19/84)

40 CFR 60 Subpart J – Petroleum refineries (6/11/73)

40 CFR 60 Subpart GG – Stationary gas turbines (10/3/77)

40 CFR 60 Subpart UU – Asphalt roofing plants: (11/18/80)

stg. blowing of non-roofing asph. (5/26/81)

40 CFR 60 Subpart VV – SOCOMI VOC equipment leaks (1/4/83)

40 CFR 60 Subpart XX – Bulk gasoline terminals (12/17/80)

40 CFR 60 Subpart GGG – Refinery VOC equipment leaks (1/4/83)

40 CFR 60 Subpart III – SOCOMI air oxid. unit processes (10/21/83)

40 CFR 60 Subpart NNN – SOCOMI distillation operations (12/30/83)

40 CFR 60 Subpart QQQ – Refinery wastewater VOC leaks (5/4/87)

40 CFR 60 Subpart RRR – SOCOMI reactor processes (6/29/90)

MACT Regulations:

40 CFR 63 Subpart Q – Ind. Process cooling towers

40 CFR 63 Subpart F,G,H – SOCOMI HON

40 CFR 63 Subpart CC – Refineries



Edward Wiener  
Chief of Source Registration