



**CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES**

INSTALLATION PERMIT

Installation Permit No.: IP18-000431
Plant ID:10479

Date: February 21, 2019

Owner: Philadelphia Refinery Operations, a Series of Evergreen Resources Management Group, LLC
Address: 2 Righter Parkway, Suite 200
Wilmington, DE 19103

Source: Evergreen Resources Management Group
Locations: 2700 W Passyunk Avenue, Philadelphia, PA 19145 (Belmont Terminal Site)
3144 W Passyunk Avenue, Philadelphia, PA 19145 (PES Refinery Site)

Permit Contact: Tiffani Doerr, Project Manager
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Email: TLDoerr@evergreenresmgt.com

Pursuant to the provisions of Title 3 of the Philadelphia Code, the Air Management Code of February 17, 1995, as amended, and after due consideration of installation permit applications received under the rules and regulations of the Philadelphia Air Pollution Control Board, the City of Philadelphia, Department of Public Health, Air Management Services (AMS) on **February 21, 2019** approved the installation of the air contamination source(s) described below:

- Replacement of the remediation system permitted under 11227 and dated 1/27/2012 with the following remediation system.

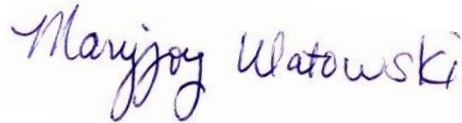
| Installation Permit No. | Location and Source Description (Rated Capacity and Manufacturer/ Model) | Type of Fuel /Material Processed |
|--------------------------------|--|---|
| IP18-000431 | Penrose Avenue Groundwater Remediation System including a Closed-Vent System at the PES Refinery Site consisting of the following: <u>Closed-Vent System Components:</u> <ul style="list-style-type: none">• One (1) Oil Water Separator (HydroQuip/ AG-03-25-PA-18)• One (1) Influent Settling Tank (300 gallons)• One (1) Secondary Settling Tank (105 gallons, Chem Trailer/ TC2454AA/AB)• One (1) LNAPL Holding Tank (550-gallons, Highland Tank and Manufacturing, Inc. | |

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| | | |
|--|---|--|
| | <ul style="list-style-type: none">• One (a) regenerative blower, AMETEK/Rotron/EN404 <p><u>Control Device:</u></p> <ul style="list-style-type: none">• One (1) Catalytic Oxidizer (100 scfm, Falmouth Products Inc., FALCO 100) | |
|--|---|--|

This Installation Permit expires on **February 21, 2020**. If construction has not been completed by this date, an application for either an extension or new installation permit must be made. The conditions of this installation permit will remain in effect until they are incorporated in an operating permit.

The source is subject to conditions prescribed in the attachment.



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1. The groundwater remediation system including the closed-vent system shall be installed, operated, and maintained in accordance with the manufacturer's specifications, and the specifications in the application (as approved herein), and with good operating practices.
2. Actual VOC emissions from the groundwater remediation system's closed-vent system shall be less than 2.7 tons per rolling 12-month period. [Application, Plan Approval Exemption]
3. Actual HAP emission from the closed-vent system shall be less than 1 ton per rolling 12-month period. [Application]
4. All vapors from the closed-vent system shall pass through the catalytic oxidizer prior to discharge to the atmosphere. The temperatures in the influent air stream, the catalyst bed, and the effluent air stream shall be continuously monitored by the equipment and the system shall shut down upon detection of any operating temperatures which are out of the range of the following catalytic oxidizer specifications:

| Temperature Position | Low Operating Range | High Operating Range |
|----------------------------|---------------------|----------------------|
| Catalyst Bed Influent (T1) | 270° C | 505° C |
| Catalyst Bed Effluent (T2) | N/A | 620° C |
| Catalyst Bed (T3) | N/A | 600° C |

5. During operation of the closed-vent system and control device, the Permittee shall comply with one of the following:
 - (a) The total Volatile Organic Compound (VOC) content in the effluent stream shall not exceed 200 ppmv at anytime.
 - (b) The minimum VOC destruction efficiency for the Catalytic Oxidizer shall be 90%.
6. The catalytic oxidizer shall operate at a minimum pre-catalyst (T1) set point temperature of 626 °F (330°C) and a minimum operating temperature of 270 °C.
7. Air Management Services (AMS) may require additional controls to be installed at any time for cause, including any findings of non-compliance with the requirements of the regulations or any documented adverse impacts on the community
8. The influent and effluent streams shall be monitored no less than once daily (Monday through Friday) with a photoionization detector (PID) to demonstrate compliance with Condition 9(a) or 9(b). If the effluent measurements demonstrate that the VOC emissions are less than 200 ppmv or if the influent and effluent measurements demonstrate that the Catalytic Oxidizer destruction efficiency is 90% or greater based on an instantaneous determination, the frequency of monitoring may be adjusted to twice a month with a PID with written approval from AMS. Please submit your data to

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AMS for approval. The Permittee shall continue to monitor on a daily basis (Monday through Friday) until written approval is obtained from AMS. A log of the measurements shall be kept on site and made available to AMS personnel upon request. If a reduced monitoring schedule is approved by AMS, monitoring will be required no less than twice per month with a PID to demonstrate that effluent VOC concentrations are in compliance with Condition 9(a) or 9(b) based on an instantaneous determination.

9. For each day of monitoring as required by this installation permit (Condition 11), the Permittee shall record the following to ensure compliance with Conditions 8, 9, and 10:
 - (a) The pre-catalyst temperature set point upon arrival and departure from the site.
 - (b) The actual pre-catalyst operating temperature.
 - (c) Date of monitoring and the influent and effluent concentrations.

10. The influent and effluent streams shall be monitored no less than once daily (Monday through Friday) with a photoionization detector (PID) to demonstrate compliance with Condition 5(a) or 5(b). If the effluent measurements demonstrate that the VOC emissions are less than 200 ppmv or if the influent and effluent measurements demonstrate that the Catalytic Oxidizer destruction efficiency is 90% or greater based on an instantaneous determination, the frequency of monitoring may be adjusted to twice a month with a PID with written approval from AMS. Please submit your data to AMS for approval. The Permittee shall continue to monitor on a daily basis (Monday through Friday) until written approval is obtained from AMS. A log of the measurements shall be kept on site and made available to AMS personnel upon request. If a reduced monitoring schedule is approved by AMS, monitoring will be required no less than twice per month with a PID to demonstrate that effluent VOC concentrations are in compliance with Condition 5(a) or 5(b) based on an instantaneous determination.

11. The Permittee shall submit above the first ten business days of operation monitoring results within 30 days to the permit engineer via email or mail to the following address:

Air Management Services
Source Registration
321 University Avenue, 2nd Floor
Philadelphia, PA 19104

*** AMS has determined that the remediation system is not applicable to the requirements of 40 CFR 63 Subpart GGGGG because Evergreen Resources Management is not a major source of HAP per 40 CFR 63.7881(a)(3) and site remediation will be performed under the authority of the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) as a remedial action or a non time-critical removal action per CFR 63.7881(b)(2)