CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES

INSTALLATION PERMIT

Installation Permit No.: 11277 Date: January 27, 2012

Plant ID: 01501

Owner:	Sunoco, Inc. (R&M)	Source:	Sunoco, Inc. (R&M)
Address:	3144 Passuynk Ave Philadelphia, PA 19145	Location:	3144 Passyunk Ave Philadelphia, PA 19145

Attention: Charles Barksdale
Manager, Environmental Department

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 an installation permit application 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 January 27, 2012 approved plans for the installation and temporary operation of the air contamination device(s) described below:

A Closed-Vent Water Remediation Treatment System. The low volume vent stream will be treated with Bio-Filtration and Carbon Adsorption.

This Installation Permit expires on January 27, 2013. If construction has not been completed by this date, an application for either an extension or a new installation permit application must be made. The conditions in this installation permit will remain in effect until they are incorporated in an operating permit.

The sources covered by this installation permit are subject to the conditions prescribed in the attachment.

Biji Pandisseril
Environmental Engineer
(215) 685-9427

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INSTALLATION PERMIT CONDITIONS
INSTALLATION PERMIT NO. 11277
COMPANY: SUNOCO, INC.

1. The Closed-Vent Water Remediation Treatment System and the control devices shall be installed, operated and maintained in accordance with the manufacturer's specification, good engineering practices, and the specifications in the application (as approved herein).

2. Sunoco, Inc. (R&M) (Sunoco) shall operate the Closed-Vent Water Remediation Treatment System and the control devices in accordance with 40 CFR Part 60, Subparts A, 40 CFR Part 63, Subparts A, DD, GGGGG, PA DEP Title 25 PA Code §§ 127.1, 123.41, 129.55, 129,58, 129.91, and Air Management Regulation II, III and V.

3. The total TOC (minus methane and ethane) through the Bio-Filter and Activated Carbon Drums shall be reduced by 95 percent by weight. [40 CFR §63.7925(d)(1)]

4. The closed-vent system shall be operated with no detectable organic emissions using the procedure specified in 40 CFR §63.694(k). [40 CFR §63.7925(c), 40 CFR §63.693(c)(1)(i)]

5. The Permittee shall control organic material emissions to prevent any odor nuisance. [AMR V Sec. XX]

6. All vapors shall be directed to the Bio-Filter and Activated Carbon Drums, except as follows: [40 CFR §63.7925(b)]
   (a) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance must not exceed 240 hours per each calendar year.
   (b) The control device may be bypassed for the purpose of correcting a malfunction of the closed-vent system or control device. You must perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

7. Each bypass device of the closed-vent system that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, must be equipped with either a flow indicator or a seal or locking device. [40 CFR §63.7925(c), 40 CFR §63.693(c)(2)]

8. The Permittee shall maintain the hourly average temperature of the adsorption bed less than or equal to the temperature established during the design evaluation or performance test. [40 CFR §63.7925(g)(2)]

9. The Permittee shall conduct a performance test or design evaluation within 180 days of start-up to demonstrate initial compliance of the Closed-Vent water remediation treatment system
   (a) If a design evaluation is used to demonstrate initial compliance, the Permittee shall perform design evaluation in accordance with 40 CFR §63.693(b)(8) and 40 CFR §63.693(d)(2)(ii).
      (A) The design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval

based on the total carbon working capacity of the control device and emission point operating schedule.

(b) During the performance test or design evaluation, you must collect the appropriate operating parameter monitoring system data, average the operating parameter data over each test run, and set operating limits, whether a minimum or maximum value, based on the average of values for each of the three test runs. If you use a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information.

(c) The performance test shall be performed in accordance with 40 CFR §63.7941(b) and 40 §CFR63.694(l).

10. The Permittee shall monitor the closed-vent system as follows:[40 CFR §63.7927(a)(1)(i), 40 CFR §63.695(c)(1)(ii) – (c)(3)]

(a) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The Permittee shall monitor a component or connection using the procedures specified in 40 CFR §63.694(k) to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(b) Closed-vent system components or connections other than those specified above in Condition 9(a), shall be monitored at least once per year using the procedures specified in 40 CFR §63.694(k) to demonstrate that components or connections operate with no detectable organic emissions.

(c) The Permittee shall visually inspect the seal or closure mechanism required by 40 CFR §63.693(c)(2)(ii) at least once every month to verify that the bypass mechanism is maintained in the closed position.

(d) The Permittee shall repair all detected defect or leak as follows:

(i) The Permittee shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) Repair of a defect may be delayed beyond 45 calendar days if either of the following conditions occurs. In this case, the Permittee must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of the defect must be completed before the process or unit resumes operation.

(A) Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system.

(B) The Permittee determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown.

11. The closed vent system shall be visually inspected annually, monitored after a repair or replacement, and monitored on an annual basis. [40 CFR 63.7928(b)(1)]

(a) Method 21 shall be used to monitor after a repair or replacement and shall comply with 40 CFR 63.694(k)

(b) The closed vent system shall be monitored annually as follows: [40 CFR 63.695(c)(1)(ii)]

(i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The Permittee shall monitor a component or connection using the procedures specified in 40 CFR §63.694(k) to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(ii) Closed-vent system components or connections other than those specified above in Condition 11(b)(i), shall be monitored at least once per year using the procedures specified in 40 CFR §63.694(k) to demonstrate that components or connections operate with no detectable organic emissions.

(iii)The Permittee shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(c) The Permittee shall repair the defect or leak as follows. [40 CFR 63.695(c)(3)]

(i) The Permittee shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) Repair of a defect may be delayed beyond 45 calendar days if either of the conditions specified below (A) or (B) occurs. In this case, the Permittee must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of the defect must be completed before the process or unit resumes operation.

(A) Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system.

(B) The Permittee determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown.

12. For closed vent system with a bypass device, the Permittee shall monitor and record either of the following: [40 CFR §63.7927(a)(2), 40 CFR §63.7928(b)(6)&(7)]

(a) If a flow indicator is used, the indicator must be installed at the entrance to the bypass line used to divert the vent stream from the closed-vent system to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. The Permittee must maintain records of the following information: hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour; and records of all periods when flow is detected or the flow indicator is not operating. [40 CFR §63.693(c)(i)]
OR

(b) If a seal or locking device is used, the device shall be placed on the mechanism by which the bypass device position is controlled (*e.g.,* valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The Permittee shall make monthly inspection to ensure the seal or locking device is in use. [40 CFR §63.693(c)(i)]

13. The Permittee shall: [40 CFR §63.7927(c)]
    (a) Measure and record hourly average temperature of the absorption bed using a Continuous Parameter Monitor System. OR
    (b) Monitor the concentration of the organic compound in the exhaust vent stream on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established in accordance with 40 CFR §63.693(d)(2)(ii)(B), whichever is longer. [40 CFR §63.693(d)(4)(iii)(A)]

14. The Permittee shall maintain a record of the following: [40 CFR §63.7927(a)(1)(i), 40 CFR §63.695(c)]
    (a) The date of each visual inspections of the closed-vent system in accordance with Condition11 (a) and 11(c),
    (b) Records each component or connection does not operate with no detectable organic emissions in accordance with Condition11 (a) and 11(b),
    (c) Records of all repairs in accordance with Condition 11(d)

15. The Permittee shall monitor and keep records to demonstration compliance with Condition 3. [40 CFR §63.7928(c)]

16. The Permittee shall keep records of each inspection that include the following: [40 CFR §63.7928(b)(4)]
    (a) A closed vent system identification number (or other unique identification description you select).
    (b) Date of each inspection.
    (c) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

17. The Permittee shall monitor and keep records of the spent carbon replacement and disposal work practice standards by: [40 CFR §63.7928(g)]
    (a) Monitoring the concentration level of the organic compounds in the exhaust vent for the carbon adsorption system as required by 40 CFR §63.7927(c), immediately replacing the carbon canister or carbon in the control device when breakthrough is indicated by the monitoring device, and recording the date of breakthrough and carbon replacement, OR you must replace the carbon canister or carbon in the control device at regular intervals and record the date of carbon replacement.
    (b) Following the disposal requirements for spent carbon in 40 CFR §63.693(d)(4)(ii).

18. The Permittee shall submit initial compliance notification as part of your notification of compliance status, specified in 40 CFR §63.7950, a signed statement that you have met the following requirements, as follows:
    (a) For Closed Vent System: [40 CFR §63.7926(b)]
        (i) The Permittee has installed a closed vent system in accordance with 40 CFR§63.695(c)(1) and (2), and you have records documenting the equipment design and installation.
        (ii) The Permittee has performed the initial inspection of the closed vent system according to the requirements in 40 CFR §63.695(c)(1)(i) or (ii), and you have records documenting the inspection results.
    (b) For Control Device: [40 CFR §63.7926(c)]
        (i) TOC measured or determined according to the procedures for performance tests and design evaluations in 40 CFR§63.7941, are reduced by at least 95 percent by weight. [40 CFR §63.7926(c)]
        (ii) The Permittee has established an appropriate operating limit(s) for each of the operating parameter applicable to your control device as specified in 40 CFR §63.7925(g)(2). [40 CFR §63.7926(d)(1)]
        (iii)The Permittee has a record of the applicable operating parameter data during the performance test or design evaluation during which the emissions met the applicable limit. [40 CFR §63.7926(d)(2)]
        (iv) The Permittee shall demonstrate initial compliance with the spent carbon replacement and disposal work practice standards for carbon adsorption systems in 40 CFR §63.7925(h). [40 CFR §63.7926(e)]

19. The Permittee shall submit semi-annual notifications as required in 40 CFR 63.7951 to

Chief of Source Registration
Air Management Services
321 University Avenue
Philadelphia, PA 19104

and all notifications required by the Consent Decree and NSPS shall also be directed to EPA at:

Associate Director
Office of Enforcement and Compliance Assistance (3AP20)
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

cc: AMS Conformance File

CITY OF PHILADELPHIA

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January 27, 2012

Charles Barksdale
Sunoco, Inc. (R&M)
3144 Passyunk Avenue
Philadelphia PA. 19145

PLID: 01501

RE: Installation Permit 11277

Dear Mr. Barksdale,

AMS has received and reviewed your permit application for the closed system groundwater remediation process at your facility. Enclosed is the permit along with its conditions.

If you have any question, please contact me by email at Biji.Pandisseril@phila.gov or by phone at (215) 685-9427.

Sincerely,

Biji Pandisseril
Environmental Engineer