

STATEMENT OF BASIS for BUCKEYE PERTH AMBOY TERMINAL LLC

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 18058 / Permit Activity Number: BOP210001

I. FACILITY INFORMATION

Buckeye Perth Amboy Terminal LLC is located at 380 Maurer Road, Perth Amboy, Middlesex County, NJ 08861 and consists of a petroleum products marketing terminal with movement of products using pipeline, barge, truck rack, and rail. The facility is owned and operated by Buckeye Perth Amboy Terminal LLC.

The facility is classified as a major facility based on its potential to emit 993 tons per year of volatile organic compounds (VOC), 115 tons per year of nitrogen oxides (NOx), and 104 tons per year of carbon monoxide (CO).

It is also classified as a major hazardous air pollutant (HAP) facility. A HAP emitting facility is designated as major when the allowed emissions exceed 10 tons per year of any individual hazardous air pollutant or 25 tons per year of any combination of individual hazardous air pollutants that may be emitted simultaneously.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 0.0274 pounds per year of arsenic, 1.18 tons per year of benzene, 0.151 pounds per year of cadmium, 0.0115 pounds per year of cobalt, 0.00220 pounds per year of 7,12-dimethylbenz(a)anthracene, 10.3 pounds per year of formaldehyde, 16.9 tons per year of hexane, 220 pounds per year of hydrogen sulfide, and 2.48 tons per year of xylene from significant sources and 30.9 tons per year of total HAPs from insignificant sources and non-source fugitive sources. Total HAPs emissions from insignificant sources and non-source fugitives are estimated values and are not speciated.

II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as "attainment" or "nonattainment" for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS. New Jersey is designated attainment for all other pollutants. For nonattainment classification refer to <https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information>.

III. BACKGROUND AND HISTORY

The equipment that emits air contaminants from this facility include: fixed and floating roof storage tanks that may utilize portable thermal oxidizers or engines with no less than 99% reduction efficiency for VOC during certain operating scenarios, marine loading equipment equipped with thermal oxidizers with no less than 95% reduction efficiency for VOC and no less than 98% reduction efficiency for HAP, truck loading equipment equipped with a carbon adsorption unit and backup portable vapor thermal oxidizer with no less than 95% reduction efficiency of VOC, an effluent treatment plant, an oil water separator, combustion equipment including oil and hot water heaters, boilers, and emergency generators, and contractor sludge and power equipment that may be equipped with carbon adsorption units.

Health Risk Assessment was conducted as part of the review of this permit application and health risk was determined to be negligible consistent with NJDEP Technical Manual 1003.

This is a Permit Modification and includes the following changes:

Installation of two (2) 8 MMBtu/hr Hot Water Heaters firing Natural Gas (Emission Unit U19, Operating Scenarios OS59 and OS60, Equipment E5404 and E5405, Emission Points PT5404 and PT5405) to heat railcars and existing aboveground storage tanks for the off-loading and storage of B100 biodiesel.

The change made during this permit activity result in allowable annual emissions changes as follows:

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Increase of NO_x by 2.45 tons per year, increase of CO by 2.66 tons per year, increase of TSP by 0.52 tons per year, increase of PM-10 by 0.52 tons per year, increase of Arsenic by 0.0000137 tons per year, increase of Cadmium by 0.0000756 tons per year, increase of Cobalt by 0.00000577 tons per year, increase of Dimethylbenz(a)anthracene by 0.000000550 tons per year, and increase of Formaldehyde by 0.00515 tons per year.

There was a typographical error on the current permit for HAPs that results in the appearance of a 0.1 tons per year decrease in HAPs, a rounding error on the current permit for VOC that results in the appearance of a 0.1 tons per year decrease in VOC, and the inclusion of PM_{2.5} emissions as a result of a regulatory change that results in the appearance of 17.3 tons per year increase in PM_{2.5} emissions. In each of these cases, there is no actual change to the equipment, operation, or permit limits.

This modification will also change the facility-wide emission limits as listed in the following table:

Allowable Emission Limits	Facility's Potential Emissions (tons per year)*									
	VOC (total)	NO _x	CO	SO ₂	TSP (total)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs (total)	CO _{2e} (total)
Current Permit	993.5	113	101	24.1	31.4	25.0	N/A	N/A	51.6	173,000
Proposed Permit	993.4	116	104	24.1	31.9	25.5	17.3	N/A	51.5	182,000
Change (+ / -)	-0.1	+3	+3	0	+0.5	+0.5	+17.3	N/A	-0.1	+9,000

VOC Volatile Organic Compounds

NO_x Nitrogen Oxides

CO Carbon Monoxide

SO₂ Sulfur Dioxide

TSP Total Suspended Particulates

PM₁₀ Particulates under 10 microns

PM_{2.5} Particulates under 2.5 microns

Pb Lead

HAPs Hazardous Air Pollutants

CO_{2e} Carbon Dioxide equivalent

* Other Any other air contaminant regulated under the Federal Clean Air Act. This permit does not contain any air pollutants under this category.

IV. CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this modification.

V. EMISSION OFFSET REQUIREMENTS

This modification is not subject to Emission Offset requirements.

VI. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.

For hot water heaters E5404 and E5405, the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for NO_x, CO, TSP, PM-10, arsenic, cadmium, cobalt, 7,12-dimethylbenz(a)anthracene, and formaldehyde. Surrogate monitoring for the short-term (lb/hr) emission limits are combustion process adjustment for NO_x and CO.

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3. In some cases, direct periodic monitoring of emissions and/or surrogate parameters is not required due to one or more of the following:
- Equipment size and capacity limitations,
 - Subject equipment being permitted at the maximum rated capacity,
 - There is no specific state or Federal standard that applies to this piece of equipment,
 - Not a pollutant of concern for this piece of equipment,
 - Agreements with EPA on the frequency of testing and monitoring for combustion sources.

VII. APPLICABLE STATE AND FEDERAL RULES

This modification is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:

<http://www.nj.gov/dep/aqm/rules27.html>

This modification is also subject to Federal regulations listed below.

MACT Subpart A: General Provisions

MACT Subpart DDDDD: Industrial, Commercial, and Institutional Boilers and Process Heaters

The Greenhouse Gas (GHG) emissions from this facility are 182,000 TPY CO₂e and the GHG emissions increases are 9,000 TPY CO₂e. This modification is not subject to PSD rules at 40 CFR 52.21.

VIII. FACILITY'S COMPLIANCE STATUS

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

Prior to the expiration of the Operating Permit's five-year term, the facility will be required to apply for a renewal, at which time the Department will evaluate the facility and issue a public notice with its findings.

IX. EXEMPT ACTIVITIES

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

FACILITY NAME (FACILITY ID NUMBER)
BOP050001

Activity Number assigned
by the Department

New Jersey Department of Environmental Protection Facility Specific Requirements

Emission Unit Number
assigned by the Facility

Brief description of
emission unit

Emission Unit: U40 Sewage Sludge Incinerators
Operating Scenario: OS Summary

OR

OS2 Fluidized Bed Incinerator

OS Summary lists all rules and requirements that apply to an emission unit. An emission unit may contain one or more pieces of equipment and corresponding operating scenarios.

OSX denotes the operating scenario number and lists the rules and requirements that apply to a scenario. An operating scenario represents various ways (or scenarios) a piece of equipment is permitted to operate.

Item
Number

Description of applicable
requirement

Monitoring method to
ensure compliance

Recordkeeping to show
facility's compliance

Actions and submittals
required for the facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The permittee shall conduct an annual performance test for each pollutant in Table 2 of 40CFR62 Subpart LLL between 11 and 13 calendar months after the previous performance test or within 60 days of a process change. [40 CFR 62.16000(a)]	Other: Conduct the performance test using the test methods, averaging methods and minimum sampling volumes or durations as specified in 40CFR62 Subpart LLL and according to the testing, monitoring and calibration requirements specified in 40 CFR 62.16015(a). [40 CFR 62.16000(a)].	Other: (1) Maintain records of the results of initial, annual and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable. [40 CFR 62.16025(e)].	Submit a report: Annually to the Administrator and to the Department. The permittee shall submit an annual compliance report as specified in 40 CFR 62. [40 CFR 62.16000(d)]

Rule citation for
applicable requirement

Rule citation for
monitoring requirement

Rule citation for
recordkeeping requirement

Rule citation for submittal/
action requirement

Explanation Sheet for Facility Specific Requirements