

# STATEMENT OF BASIS for LANDFILL SITE 1E

## TITLE V OPERATING PERMIT RENEWAL AND PERMIT MODIFICATION

Program Interest (PI): 02844 / Permit Activity Number: BOP190001

### I. FACILITY INFORMATION

Landfill Site 1E is located at 100 Baler Boulevard, North Arlington, Bergen County, NJ 07031 and consists of a closed landfill and solid waste transfer station. The facility is owned by New Jersey Sports and Exposition Authority and is operated by New Jersey Sports and Exposition Authority.

The facility is classified as a major facility based on its potential to emit Methane 3701 tons per year.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 1.78 pounds per year of Acrylonitrile, 672 pounds per year of Ethylbenzene, 852 pounds per year of Methyl ethyl ketone (MEK), 442 pounds per year of 2-Propanol, 3,220 pounds per year of Toluene, 66 pounds per year of Vinyl chloride and 12,620 pounds per year of Hydrogen chloride.

### 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 (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), 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 a Closed Landfill with active Gas Collection System venting to Open Flare and solid waste transfer station. An active gas collection system is equipped with an electrical centrifugal blower (Hoffman Model No. 76103A5), located at the flare station that applies a vacuum to the piping network that connects vertical extraction wells drilled into the waste mass. The blower then directs the collected gas to the open flare for combustion. Loading/unloading of municipal solid waste at transfer station has potential to generate particulates emissions and odors. To control Particulates emissions, the transfer building is equipped with the six particulate control devices. To control odors, transfer station is equipped with carbon adsorption control device.

Table 1 - Operating Permit Revision History (located at the end of this document) provides a summary of all the changes that have been incorporated into the operating permit through seven-day notice changes, administrative amendments, minor modifications, or significant modifications since the approval of the initial operating permit or the most recent renewal thereof. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.

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 5-year Permit Renewal (BOP190001) combined with Permit Modification (BOP180001) that includes the following changes:

1. Decommissioned the enclosed flare CD501 and transition to exclusive operation of the open flare CD502. Deleted Control Device CD501, U1/OS1 because of lack of landfill gas production. Removed PT1.
2. Removed the provisions under 40 CFR 60 [New Source Performance Standards (NSPS Subpart WWW)] and [40 CFR 63 (National Emission Standards for Hazardous Air pollutants (NESHAPS))] per the EPA approval of Landfill 1E Gas Collection and Control System (GCCS) Removal dated 11/26/2019.
3. Changes made in Emission Unit U1 due to using open flare (CD502):
  - a) OS Summary/Reference #7, change the emission limit for CO from 70.96 to 98.4 tons/yr.

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- b) OS Summary/Reference #13, change the emission limit for Methane from 3,627 to 3702 tons/yr.
- c) OS Summary/Reference # 29, changed the landfill gas usage from 788,400 MMBtu/yr to 531,907 MMBtu/yr.
- d) OS2/Reference #26/Applicable Requirement: Changed Max Gross Heat Input from 60 to 60.72 MMBtu/hr

4. Emission Point Inventory - Emission Point Inventory - PT2 for Open Flare, Exhaust Volume was changed to 1140 ACFM, based on 19 ACFS.

5. Revised contact information in the facility profile.

This renewal will also change the allowable emission limits as listed in the following table:

Allowable Emission Limits	Facility's Potential Emissions (tons per year)*									
	VOC (total)	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs (total)	CO <sub>2e</sub> (total)
Current Permit	24.3	24.08	71.07	54.32	24.93	24.93	24.93	NA	7.51	45,583
Proposed Permit	24.3	24.08	98.4	54.32	24.93	24.93	24.93	NA	8.19	45,583
Change (+ / -)	0.0	0.0	+27.33	0.0	0.0	0.0	0.0	NA	+0.68	0.0

VOC	Volatile Organic Compounds	PM <sub>10</sub>	Particulates under 10 microns
NO <sub>x</sub>	Nitrogen Oxides	PM <sub>2.5</sub>	Particulates under 2.5 microns
CO	Carbon Monoxide	Pb	Lead
SO <sub>2</sub>	Sulfur Dioxide	HAPs	Hazardous Air Pollutants
TSP	Total Suspended Particulates	CO <sub>2e</sub>	Carbon Dioxide equivalent

\* Other Any other air contaminant regulated under the Federal Clean Air Act.

The allowable emission limits shall include both significant and insignificant sources.

#### IV. CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this permit action.

#### V. EMISSION OFFSET REQUIREMENTS

This permit action 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.
  - Periodic monitoring for H<sub>2</sub>S ambient concentration
  - Landfill Gas flow monitoring to open flare

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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.
  - Continue landfill gas flow monitoring requirements

#### **VII. APPLICABLE STATE AND FEDERAL RULES**

The facility 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>

The facility is not subject to Federal regulations.

The Greenhouse Gas (GHG) emissions from this facility are 45,583 TPY CO<sub>2</sub>e and there is no GHG emissions increase. This renewal 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.

The facility has submitted a timely and complete application to renew their operating permit and an application shield is in effect.

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.

Also, prior to the expiration of the five-year period, the facility will be required to apply for a renewal of this operating permit, 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.

Table 1 - Operating Permit Revision History

Permit Activity Number	Type of Revision	Description of Revision	Final Action Date
BOP150001	Administrative Amendment	<p>Change organization name and NJ EIN number for the Air Permit Information Contact, BOP - Operating Permits Contact, General Contact, Owner (Current primary), Regulation Officer and Responsible Official. Change Consultant Contact information.</p> <p>Corrected a typo in the expiration date of BOP140001 from November 8, 2015 to November 8, 2020.</p>	6/16/15
BOP140001	Renewal	<p>5-year Title V Renewal Operating Permit of BOP130001, that was the result of previously issued Minor Modification (BOP130001) included three permits BOP PI 02844, PI 02736 and PCP PI 00771/PCP960002, combined in BOP PI 02844, Activity BOP130001, to cover Balefill Landfill PI 02736 (closed on January 7, 2009), equipped with Gas Collection System venting into flares (Enclosed flare-CD 501 and Open flare-CD 502) and Transfer Station (PI 00771/PCP960002).</p> <p>Potential to Emit (PTE), Allowed and Actual emission trends are provided as PDF attachments. The 5-year Trend tables and figures are associated with PI # 02844/BOP130001, PI # 02736, and PI # 00771/PCP960002, combined in PI 02844, BOP130001.</p> <p>The PTE and actual emissions for the Year 2009 reflect PI# 02736, BOP080001 permitted to MM Hackensack Energy LLC and PI# 02844 BOP100001 permitted to New Jersey Meadowlands Commission. The PTE and actual emissions for the Years 2010 through 2013 reflect PI# 02736, BOP100002 permitted to New Jersey Meadowlands Commission and PI# 02844 BOP100001. These PI#s and BOPs were active during the 5-year period of 2009-2013.</p>	5/22/15

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**