

# STATEMENT OF BASIS for MONMOUTH COUNTY RECLAMATION CENTER

## TITLE V OPERATING PERMIT RENEWAL AND PERMIT MODIFICATION

Program Interest (PI): 21351 / Permit Activity Number: BOP180001

### I. FACILITY INFORMATION

Monmouth County Reclamation Center is located at 6000 Asbury Ave. and Shafto Road, Tinton Falls, Monmouth County, NJ 07753 and consists of an operating Municipal Solid Waste Landfill. The facility is owned and operated by the Monmouth County Board of Chosen Freeholders.

The facility is classified as a major facility based on its potential to emit 61.59 tons per year of nitrogen oxides, 30.68 tons of volatile organic compounds and 139.88 tons per year of carbon monoxide.

This permit allows individual hazardous air pollutant to be emitted at a rate to not exceed: 14.72 lb per year of acrylonitrile, 3760 lb per year of HCl, 33.4 lb per year of vinyl chloride, 0.2 lb per year of formaldehyde, 9 lb per year of tetrachloroethane (1,1,2,2-), 120 lb per year of benzene, 80.4 lb per year of dichloroethane (1,2-), 714 lb per year of ethylbenzene and 14.6 lb per year of trichloroethylene to the atmosphere.

### 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: operating sections of the landfill accepting municipal solid waste, landfill gas fired internal combustion engine and two enclosed flares.

This permit also incorporates one general operating permit(s) (Activity # BOP150001) that the facility obtained for an emergency diesel generator with a heat input rate of 9.44 MMBTU/hr (HHV). This generator is permitted to operate up to 100 hours per year on fuel oil for testing and maintenance. The total increase in facility emissions due to the addition of this new generator is 0.139 tons of NO<sub>x</sub>, and 250 tons of CO<sub>2e</sub> per year.

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 Permit Renewal with Significant Modification and includes the following changes:

1. 18 new Insignificant Sources
2. 9.44 MMBtu/hr Leachate Emergency Generator

The Title V Operating Permit modification includes an addition of waste capacity for the landfill expansion (Phase IV landfill) along with associated fugitive emissions. In addition, a modification includes to the emissions and operation of the MCRC's Flare C (CD3). Also, several insignificant equipment operations that have changed since the submittal of the Title V Operating Permit Renewal including tanks associated with the leachate treatment plant.

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This renewal with modification 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	31.18	80.33	148.57	75.89	32.17	24.41	24.41	NA	3.3	601,710
Proposed Permit	30.47	57.92	137.04	66.51	31.81	24.05	19.7	NA	4.1258	601,960
Change (+ / -)	-0.71	-22.41	-11.53	-9.38	-0.36	-0.36	-4.71	NA	+0.8258	+250

Note that the current permit's total emissions are from the compliance plan since it's Section A Emissions Summary Table 1 emission numbers were erroneously summarized.

VOC Volatile Organic Compounds

NO<sub>x</sub> Nitrogen Oxides

CO Carbon Monoxide

SO<sub>2</sub> Sulfur Dioxide

TSP Total Suspended Particulates

PM<sub>10</sub> Particulates under 10 microns

PM<sub>2.5</sub> Particulates under 2.5 microns

Pb Lead

HAPs Hazardous Air Pollutants

CO<sub>2e</sub> Carbon Dioxide equivalent

\* Other Any other air contaminant regulated under the Federal Clean Air Act. There is no change to the ammonia emissions.

#### 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.
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.

Based on the above criteria, there is no direct or surrogate monitoring for the following pieces of equipment:

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#### 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 also subject to Federal regulations listed below.

NSPS Subpart A: General Provisions

NSPS Subpart OOO: 40 CFR 62, Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014.

NSPS Subpart JJJJ: Spark Ignited Internal Combustion Engines

NSPS Subpart Kb: Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

MACT Subpart A: General Provisions

MACT Subpart AAAA: MSW Landfills

MACT Subpart CCCCCC: Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

The Greenhouse Gas (GHG) emissions from this facility are 601,710 TPY CO<sub>2</sub>e and the GHG emissions increase are 250 TPY CO<sub>2</sub>e. This renewal and 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.

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
BOP200001	Minor Modification	A new Emission Unit U28: a 20,000 gallon compartmentalized above ground storage tank and dispensing facility consisting of 15,000 gal diesel and 5,000 gal gasoline, is replacing the U6, 6,000 gallon gasoline UST (E6) and two 10,000 gallon diesel UST's (IS1). U6 will be deleted.	7/28/2021
BOP190001	Minor Modification	<p>New installation of Neutralizing misting system as Insignificant Sources as following:</p> <ol style="list-style-type: none"> <li>1. Added ten (10) 330-gallon containers of Neutralene (IS10)</li> <li>2. Five (5) 330-gallon containers of Neutralene and misting system (IS11)</li> <li>3. Six (6) 330-gallon containers of diluted Neutralene and fogger system (IS12)</li> <li>4. Two (2) Doosan Diesel Compressor Engines, 0.48 MMBtu/hr (IS13)</li> <li>5. Added H2S Surface Monitoring Requirement in Emission Unit U1 (Phase 1), U2 (Phase II) and U3 (Phase III).</li> </ol>	8/24/2020

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**