

STATEMENT OF BASIS for CUMBERLAND COUNTY SOLID WASTE FACILITY

TITLE V OPERATING PERMIT RENEWAL

Program Interest (PI): 75510 / Permit Activity Number: BOP210001

I. FACILITY INFORMATION

Cumberland County Solid Waste Facility is located at 169 Jesse Bridge Rd, Deerfield Township, Millville, Cumberland County, NJ 08332 and consists of a municipal solid waste landfill. The facility is owned by Cumberland County Improvement Authority and is operated by Cumberland County Solid Waste Facility.

The facility is classified as a major facility based on its potential to emit 23.73 tons per year of VOC, 249.08 tons per year of TSP, and 100.08 tons per year of PM₁₀ to the atmosphere.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 8.6 pounds per year of 1,1,2,2-Tetrachloroethane, 53.68 pounds per year of 1,1-Dichloroethane, 8.69 pounds per year of 1,2-Dichloroethane, 1.4 pounds per year of Acrylonitrile, 55.6 pounds per year of benzene, 173 pounds per year of 1,4-Dichlorobenzene, 527.7 pounds per year of Ethylbenzene, 6.3 pounds per year of Ethylene dibromide, 65.5 pounds per year of Trichloroethylene and 102 pounds per year of total HAPs from insignificant sources. Total HAPs emissions from insignificant sources 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: one design capacity of 4.75 million megagrams municipal solid waste landfill and five emergency generators.

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.

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

This is a Permit Renewal and includes the following changes:

1. Removed E12, 2,000-gallon gasoline above ground storage tank, deleted the emission unit U12 correspondingly,
2. Added IS17, a 1,500-gallon gasoline aboveground storage tank, with an estimated 0.2 tons per year of VOC emissions, located near the Maintenance Building,
3. HAPs emissions from emission unit U10 were added based on the new N.J.A.C. 7:27-17 reporting thresholds. HAPs added include: 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane, 1,2-Dichloroethane, Acrylonitrile, benzene, 1,4-Dichlorobenzene, Ethylbenzene, Ethylene dibromide and Trichloroethylene.

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

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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	24.44	0.972	0.483	0.023	249.08	100.08	0.018	NA	0.051	67,138
Proposed Permit	23.734	1.257	0.511	0.018	249.08	100.08	0.018	NA	0.501	67,138
Change (+ / -)	-0.706	+0.285	+0.028	-0.005	0	0	0	NA	+0.45	0

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 modification will change permitted hydrogen sulfide from 0 to 5.6 tons per year.

IV. 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:

- 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
- 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 H₂S ambient concentration
 - Landfill Gas flow monitoring to open flare
- 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.

V. 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 (40 CFR 60):

General Provisions

NSPS Subpart XXX (40 CFR 60):

Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014 (U10)

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NSPS Subpart IIII (40 CFR 60):	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (U13 & U14)
MACT Subpart A (40 CFR 63):	General Provisions
MACT Subpart AAAA (40 CFR 63):	National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (U10)
MACT Subpart ZZZZ (40 CFR 63):	National Emissions Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines (U13 & U14)
MACT Subpart CCCCCC (40 CFR 63):	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.

The Greenhouse Gas (GHG) emissions from this facility are 67,138 TPY CO₂e and there is no GHG emissions increase. This renewal is not subject to PSD rules at 40 CFR 52.21.

VI. 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 also 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.

VII. 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
BOP230001	Minor Modification	This minor modification will correct the pollutant emission rates for Emergency Generators U16, U17 and U18 to reflect the use of diesel fuel. The emission rates were originally calculated using emission factors associated with natural gas combustion.	3/19/2024
BOP190002	Significant Modification	<p>This significant modification includes the following:</p> <ol style="list-style-type: none"> 1. Update IS13 throughput from 20 Mgal/yr to 55 Mgal/yr. Update IS14 throughput from 20 Mgal/yr to 55 Mgal/yr. 2. Add three (3) diesel emergency generator sets as follows: Generator Set 1: Storage and Fleet Maintenance Building Diesel Emergency Genset Kohler Model 400REOZJD Serial Number 34MFGMJD006 Generator Set 2: CNG Filling Station Diesel Emergency Genset Kohler Model 400REOZJD Serial Number 34MFGMJD0004 Generator Set 3: Blower Building Diesel Emergency Genset Kohler Model 400REOZJD Serial Number 34MFGMJD005 3. Revise Facility Designation U12 wording (delete "Healy Vacuum Assist Phase II Vapor Recovery System") 4. Remove (a) Equipment NJID E9 (Facility Designation U9) Aerovents 1-6 and (b) Equipment NJID E15 (Facility Designation U15) Horizontal Wood Grinder - Vermeer HG6000E. 5. Under emission unit U10, the Landfill Design Capacity increased form 13,797,360 Cu. Yards to 15,149,140 Cu. Yards. 6. Under emission unit U10, the Landfill Design Capacity increase / Horizontal Expansion has resulted in the facility becoming subject to NSPS 40 CFR Part 60, Subpart XXX, pursuant to 40 CFR Part 60.760(a), which supersedes and replaces the NSPS 40 CFR Part 60, Subpart WWW. This expansion will increase hourly and annual landfill emissions. 7. Added Fifteen Natural Gas Fired Heating Units, Less than 1MMBtu/hour, each. 	1/25/2022

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