

STATEMENT OF BASIS for
ATLANTIC COUNTY UTILITIES AUTHORITY SLF & TRANSFER STATION

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION
Program Interest (PI): 70506 / Permit Activity Number: BOP230003

I. FACILITY INFORMATION

Atlantic County Utilities Authority is located at 6700 Delilah Road and Dougherty Road, Egg Harbor Township, Atlantic County, NJ 08234 and consists of Municipal Solid Waste Landfill, and a Solid Waste Transfer Station. The facility is owned and operated by Atlantic County Utilities Authority.

The facility is classified as a major facility based on its potential to emit 113 tons per year of carbon monoxide, 40.0 tons per year of nitrogen oxides, and 5760 tons per year of methane. This permit allows any individual hazardous air pollutant to be emitted at a rate to not exceed: 10 pounds per year of Arsenic, 0.0752 pounds per year of Cadmium, 0.00574 pounds per year of Cobalt, 5.12 pounds per year of Formaldehyde, 8240 pounds per year of hydrogen chloride, 46 pounds per year of Phenol, and 1.124 pounds per year of Tetrachloroethane.

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: Municipal Solid Waste Landfill, Solid Waste Transfer Station (with 99.9% control efficiency particulate control filter), Recycling Center (with 2 99.9% control efficiency Baghouses), Landfill Gas Collection System, Landfill Gas Control System (with enclosed and open flares and H₂S gas treatment unit), Renewable Natural Gas (RNG) plant (with thermal oxidizer and waste gas flare), Leachate Storage Tanks, Gasoline Tank with Stage 2 Vapor Recovery System, two Tub Grinders with Diesel Engines, Natural Gas Fired Heater, three Emergency Generators, Waste Oil Fired Heater, and portable screener.

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:

- Applicable requirements from 40 CFR 62 Subpart OOO related to landfill gas treatment were added to GR1 Federal Regulations (GR1 Ref#'s 38 and 39)
- A renewable natural gas (RNG) plant was added to U100 Landfill Gas Control System.
- Thermal Oxidizer (CD103) was added to control the waste gas stream from the RNG plant; New Operating Scenario U100 OS3, contains operating requirements for CD103.
- Utility Flare (CD104) was added to control off-specification product gas and product gas unable to be injected into a natural gas pipeline from the RNG plant; New Operating Scenario U100 OS4, contains operating requirements for CD104.
- Add the following annual HAP emission limits (which are above the reporting threshold), from the RNG plant, to U100 OS Summary:
 - Arsenic: 0.00000683 tpy
 - Cadmium: 0.0000376 tpy
 - Cobalt: 0.00000287 tpy
 - Formaldehyde: 0.00256 tpy
 - Tetrachloroethane (1,1,2,2-): 0.000562 tpy

STATEMENT OF BASIS for ATLANTIC COUNTY UTILITIES AUTHORITY SLF & TRANSFER STATION

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION
Program Interest (PI): 70506 / Permit Activity Number: BOP230003

This modification will not change the facility-wide emission limits as shown 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	23.2	40.0	113	51.8	35.1	15.8	9.19	N/A	4.15	286,000
Proposed Permit	23.2	40.0	113	51.8	35.1	15.8	9.19	N/A	4.15	286,000
Change (+ / -)	0	0	0	0	0	0	0	N/A	0	0

VOC Volatile Organic Compounds

NO_x Nitrogen Oxides

CO Carbon Monoxide

SO₂ Sulfur Dioxide

TSP Total Suspended Particulates

* Other Any other air contaminant regulated under the Federal Clean Air Act. There is no change to the Methane or Hydrogen Sulfide emissions.

PM₁₀ Particulates under 10 microns

PM_{2.5} Particulates under 2.5 microns

Pb Lead

HAPs Hazardous Air Pollutants

CO_{2e} Carbon Dioxide equivalent

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:

- 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.

For the RNG Thermal Oxidizer, CD103, the facility maintains a minimum operating temperature of 1,500 degrees Fahrenheit to ensure adequate destruction of VOCs, NMOCs, and HAPs. The facility also monitors the total annual throughput of waste gas combusted by the thermal oxidizer as a surrogate for the long-term (tpy) emission limits for NO_x, CO, VOC, SO₂, TSP, PM-10, PM-2.5 and HAPs emissions.

For the RNG flare, CD104, the facility monitors the maximum annual gross heat input as a surrogate for the long-term (tpy) emission limits for NO_x, CO, VOC, SO₂, TSP, PM-10, PM-2.5 and Hydrogen Chloride. Surrogate monitoring for the short term (lb/hr) emission limits is an annual inspection, prior to May 1st of each year, to ensure that the flare continues to be operated in accordance with the manufacturer's specifications.

- In some cases, direct periodic monitoring of emissions and/or surrogate parameters is not required due to one or more of the following:

STATEMENT OF BASIS for
ATLANTIC COUNTY UTILITIES AUTHORITY SLF & TRANSFER STATION

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION
Program Interest (PI): 70506 / Permit Activity Number: BOP230003

- 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.

40 CFR60 Subpart A (NSPS)	General Provisions
40 CFR60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR61 Subpart M (NESHAP)	National Emission Standards for
40 CFR62 Subpart OOO	Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014
40 CFR63 Subpart A (MACT)	General Provisions
40 CFR63 Subpart AAAA	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
40 CFR63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines

The Greenhouse Gas (GHG) emissions from this facility are 286,000 TPY CO₂e and there is no GHG emissions increase. 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

STATEMENT OF BASIS for
ATLANTIC COUNTY UTILITIES AUTHORITY SLF & TRANSFER STATION

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 70506 / Permit Activity Number: BOP230003

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