

# STATEMENT OF BASIS for BERGEN COUNTY UTILITIES AUTHORITY WTP

## TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 02620 / Permit Activity Number: BOP240001

### I. FACILITY INFORMATION

Bergen County Utilities Authority WTP is located at Foot of Mehrhof Road, Little Ferry, Bergen County, NJ 07643 and consists of sewage treatment facilities and a cogeneration plant. The facility is owned by Bergen County Utilities Authority and is operated by Bergen County Utilities Authority, Water Treatment Plant.

The facility is classified as a major facility based on its potential to emit 62.1 tons per year of Volatile Organic Compounds and 61.1 tons per year of Nitrogen Oxides.

This permit allows individual hazardous air pollutants to be emitted at a rate to not exceed: 560 pounds per year of acrolein and 8700 pounds per year of formaldehyde.

### 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 includes: seven boilers, three standby gas generators, five sludge digesters, three cogeneration engines.

A Facility-Wide Risk Assessment will be conducted during the next Operating Permit Renewal process. Health Risk Assessment was not conducted with this permit modification, since no changes were made to Air Toxics (including HAPs) emissions.

This is a Permit Modification and includes the following changes:

- 1) As requested by the BCUA, to comply with the Notice of Violation (NOV) issued by the Department on February 29<sup>th</sup>, 2024, and to allow time for the BCUA to obtain I-Bank loan to secure funding for the construction of Selective Catalytic Reduction (SCR) control device, receive bids, review bids and prepare and submit the revised SOTA analysis,

Emission Unit U43, OS Summary, Reference No. 54 was revised as follows:

- i) Item b. of Applicable Requirement was changed from "The permittee will obtain bids from contractors within 12 months from completion of the study to construct SCR and the enhanced digester gas pretreatment system (if necessary)." to "The permittee will obtain bids from contractors within four (4) months of receipt of Authorization to Advertise (ATA) from the New Jersey Infrastructure Bank loan funding approval required for BCUA Commissioners to authorize the issuance of bids. This milestone is contingent on receipt of acceptable bids within the four (4) month period."

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- ii) Submittal/Action Requirement was changed from "The permittee shall submit the revised State of the Art (SOTA) analysis for SCR for engine #3 within 12 months after the end of the digester gas pretreatment system study for review and approval." to "The permittee shall submit the revised State of the Art (SOTA) Analysis for SCR for engine #3 within three (3) months of receipt of "acceptable" bids from contractors.  
Acceptable bids shall be the bids received from a "responsible bidder", as defined in N.J.S.A. 40A:11-2, and the ones that contain all the required mandatory items for bid plans, and specifications, per N.J.S.A.40A:11-23.2."
- 2) Stack testing requirement at U43, OS Summary, Reference No. 3 was revised to correct equipment and operating scenarios typos.
- 3) Table 1 – Pollutant Emissions Summary, of the Operating Permit Text Section A, was revised to correct inaccuracies in the current permit. There has not been any actual change in emissions during this permit modification.

There are no proposed changes to air contaminant allowable emission rates.

#### 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. The monitoring of fuel consumption is required for the three engines in the Emission Unit U43 for purposes of monitoring compliance with the emission limits.
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.

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#### **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>

The Greenhouse Gas (GHG) emissions from this facility are 64037 TPY CO<sub>2</sub>e 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**

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**