

STATEMENT OF BASIS for NJ Rutgers University

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 08242 / Permit Activity Number: BOP150001

I. FACILITY INFORMATION

NJ Rutgers University is located at 249 University Avenue, Newark, NJ 07114, Essex County and provides higher education for students. The facility is owned and is operated by The State of New Jersey.

The facility does not emit any air contaminants above the major facility threshold level.

This permit does not contain any hazardous air pollutants.

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 and portions of the State are designated as nonattainment for the daily SO₂ NAAQS. This facility is located in a nonattainment area of the State in which the ambient air concentration exceeds 8-hour ozone NAAQS.

III. BACKGROUND AND HISTORY

The facility's current operating permit was approved on December 19, 2013. 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. This modification would allow the following changes to the facility's approved operating permit:

1. Addition of two emergency generators (one 3.54 MMBTU/hr and one 4.06 MMBTU/hr) firing natural gas and subject to federal rule NSPS Subpart JJJJ.
2. Addition of four boilers (each 2 MMBTU/hr) firing natural gas
3. Removal of two boilers (each 4.2 MMBTU/hr) firing natural gas.

This modification will also change the facility-wide emission limits as listed in the following table:

Allowable Emission Limits	Facility's Potential Emissions (tons per year)										
	VOC (total)	NO _x	CO	SO ₂	TSP (total)	Other (total)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs (total)	CO ₂ e (total)
Current Permit	1.05	16.7	16.4	15.1	1.27	NA	0.76	NA	NA	NA	12,250
Proposed Permit	1.09	18.2	16.5	15.1	1.27	NA	0.76	NA	NA	NA	12,292
Change (+ / -)	+0.04	+1.55	+0.12	0	0	0	0	0	0	0	+42

VOC	Volatile Organic Compounds	PM ₁₀	Particulates under 10 microns
NO _x	Nitrogen Oxides	PM _{2.5}	Particulates under 2.5 microns
CO	Carbon Monoxide	Pb	Lead
SO ₂	Sulfur Dioxide	HAPs	Hazardous Air Pollutants
TSP	Total Suspended Particulates	CO ₂ e	Carbon Dioxide equivalent
Other	Any other air contaminant regulated under the Federal Clean Air Act		

IV. CASE-BY-CASE DETERMINATIONS

No case-by-case determinations were required for this modification.

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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. In this case, monitoring of fuel consumption is required for the boilers and recording of the hours of testing and maintenance is required for the emergency generators.
3. In situations where the underlying applicable requirement did not specify any periodic testing or monitoring, the following factors were considered in the evaluation and determination of the appropriate methodology for compliance demonstration for each emission unit:
 - Pollutant's potential impact on public health and environment.
 - Emission unit and control device (older, less reliable equipment generally require more monitoring to ensure ongoing compliance).
 - Compliance history and margin of compliance.
 - Emissions variability and process stability (emissions units with highly variable process rates or materials generally require more monitoring to ensure ongoing compliance)
 - Quantity of emissions (emissions units that will have more impact on the environment generally require more monitoring to ensure ongoing compliance).

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.

NSPS Subpart JJJJ: Stationary Spark Ignition Internal Combustion Engine

The Greenhouse Gas (GHG) emissions from this facility are 12,292 TPY CO₂e and the GHG emissions increase are less than 75,000 TPY CO₂e.

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

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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)

BOPO50001

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: U1 25 MM BTU/hour Boiler burning Fuel Oil and Natural Gas
 Operating Scenario: OS Summary OR OSXX Boiler burning Fuel Oil

OSXX denotes the operating scenario number and lists the rules and requirements that apply to a particular scenario. An operating scenario represents various ways (or scenarios) a piece of equipment can operate.

OS Summary lists all rules and requirements that apply to an emission unit, regardless of operating scenarios. Emission unit may contain one or more pieces of equipment and the corresponding operating scenarios

Records to be kept

Submittal requirement

Item Number

Description of applicable requirement

Air contaminants

Monitoring method to ensure compliance

Actions to be taken by the facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct a comprehensive stack test at emission point PTXX at least 18 months prior to the expiration of the approved operating permit to demonstrate compliance with the <u>CO, NOx, TSP and VOC</u> emission limits.[N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack emission testing.</u> Stack test shall be conducted for CO, NOx, TSP, and VOC emissions (add language as needed). Based on any 60-minute period. [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack test results</u> . [N.J.A.C. 7:27-22.16(e)]	Stack Test - <u>Submit a protocol, conduct stack tests, submit results</u> : As per the approved schedule. <u>Submit a stack test protocol to the Bureau of Technical Services (BTS) at PO Box 437, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit.</u> [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

Rule citation (subchapter, section, and paragraph) for the applicable requirement

Rule citation for the monitoring requirement

Rule citation for the recordkeeping requirement

Rule citations for the submittal/action requirement