

STATEMENT OF BASIS for NJDOC EAST JERSEY STATE PRISON

TITLE V OPERATING PERMIT RENEWAL

Program Interest (PI): 17994 / Permit Activity Number: BOP200002

I. FACILITY INFORMATION

NJDOC East Jersey State Prison is located at 1289 Rahway Ave, Woodbridge, Middlesex County, NJ 07095 and consists of a state prison. The facility is owned and operated by the New Jersey Department of Corrections.

The facility is classified as a major facility based on its potential to emit 30.1 tons per year of NOx.

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. 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: four boilers, an emergency generator, and two gasoline storage tanks.

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.

This Five Year Renewal Operating Permit BOP200002 incorporates minor modification BOP200001 and administrative amendment BOP220001. The following changes are made to the operating permit during this renewal process:

1. Removed emission unit U6, associated equipment emergency generator E6 and emission point PT6 from operating permit.
2. U7 OS Summary updated state emergency generator requirements.
3. Combined emission units U1 #1 Boiler, U2 #2 Boiler, U3 #3 Boiler and U4 #4 Boiler into a single emission unit titled U1 Boilers #1-4. Created annual fuel usage cap for new emission unit U1 Boilers #1-4. Fuel usage limit reduced from 564.144 MMft³ of natural gas per year per boiler to 1128 MMft³ per any consecutive 12 month period combined for all four boilers. Total emissions have been updated accordingly.
4. U1 Boilers #1-4 OS1, OS3, OS5, and OS7 updated combustion adjustment language. Added recordkeeping requirement to maintain records showing maximum heat input rate (MMBTU/hr) for boilers. Added VOC and CO RACT requirements per N.J.A.C. 7:27-16.8. Updated NOx lb/hr limit to be consistent with NOx RACT limit.
5. U1 Boilers #1-4 OS2, OS4, OS6, and OS8 updated N.J.A.C. 7:27-19.25 language. Removed 500 hours per year applicable requirement for emergency fuel oil burning. Emissions updated accordingly. Added recordkeeping requirement to maintain records showing maximum heat input rate (MMBTU/hr) for boilers. Updated N.J.A.C. 7:27-9.2 sulfur language requirements and updated short-term (lb/hr) sulfur emission rate.
6. U7 sulfur emissions removed from permit based on 15 ppm sulfur diesel.
7. Updated Fees/Billing Contact to Henry L. Gantt, Air Permit Information Contact and Responsible Official to Seth Katz, and added Richard Cestone as Consultant Contact.

STATEMENT OF BASIS for NJDOC EAST JERSEY STATE PRISON

TITLE V OPERATING PERMIT RENEWAL

Program Interest (PI): 17994 / Permit Activity Number: BOP200002

8. Operating Permit Section A Pollutant Emissions Summary for Significant and Insignificant Sources was updated accordingly.
9. U11 OS Summary updated N.J.A.C. 7:27-16.3 requirements. Added MACT Subpart CCCCCC requirements for gasoline dispensing facilities and MACT Subpart A requirements. Added monthly throughput limits for gasoline storage tanks.
10. Updated various equipment inventory details, edit details and OS details for multiple pieces of equipment including SCC(s) codes, flow rates and temperature.
11. Included PM-2.5 PTE emissions for U1 and U7 consistent with N.J.A.C. 7:27-22.
12. Included methane PTE emissions for U1 consistent with N.J.A.C. 7:27-22.
13. Updated N.J.A.C. 7:27-4.2 RACT limit for U7 OS Summary.
14. Updated general description citations for applicable federal requirements.
15. The changes made during this permit activity result in decreases in all of the following air contaminants: VOC by 7.06 tpy, CO by 52.8 tpy, NOx by 85.8 tpy, SO2 by 8.67 tpy, TSP by 9.75 tpy, and PM10 by 9.75 tpy.

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:

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.

For boilers in emission unit U1, the facility monitors fuel use as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, SO2, TSP, PM-10 and PM-2.5. Surrogate monitoring for the short-term (lb/hr) emission limits are combustion process adjustment for NOx and CO, and fuel oil sulfur content for SO2.

For emergency generator U7, the facility monitors the annual hours of operation for testing and maintenance as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, TSP, PM-10, PM-2.5.

For the gasoline storage tanks in U11, the facility monitors gasoline throughput as the surrogate for the long-term (TPY) emission limits for VOC.

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.

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>

STATEMENT OF BASIS for NJDOC EAST JERSEY STATE PRISON

TITLE V OPERATING PERMIT RENEWAL

Program Interest (PI): 17994 / Permit Activity Number: BOP200002

The facility is also subject to Federal regulations listed below.

MACT Subpart A: General Provisions

MACT Subpart CCCCCC: Gasoline Dispensing Facilities

The Greenhouse Gas (GHG) emissions from this facility are 68,367 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.

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
BOP170001	Administrative Amendment	change of ownership and change in facility contacts.	3/2/2017

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