

STATEMENT OF BASIS for JOINT BASE MCGUIRE-DIX-LAKEHURST (LAKEHURST)

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 78897 / Permit Activity Number: BOP230001

I. FACILITY INFORMATION

Joint Base McGuire-Dix-Lakehurst: Lakehurst is located at Rt 547 - Bldg 5. Code 87 CEG / 787 CES. Lakehurst, NJ 08733 – 5069. Ocean County and consists of a Naval Aviation development facility. The facility is owned and operated by the U.S Air Force.

The facility is classified as a major facility based on its potential to emit 62.6 tons per year of Nitrogen Oxides (NOx).

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 0.097 pounds per year of Arsenic, 0.532 pounds per year of Cadmium, 0.041 pounds per year of Cobalt, 0.008 pounds per year of Dimethylbenz(a)anthracene(7,12), 36 pounds per year of Formaldehyde, 0.52 pounds per year of Hexavalent Chromium, 1.652 pounds per year of Manganese, 2.66 pounds per year of Nickel compounds, and 12.48 pounds per year of Lead compounds.

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: 59 Natural Gas Combustion sources (Boilers), 5 Surface coating sources equipped with three (3) Filtered boot with overhead vents, and one (1) ATI-500 pocket and Panel Filter, 7 parts washer (solvent Cleaners) and 5 fuel storage tanks equipped with one (1) Stage I Vapor Recovery.

A Facility-Wide Risk Assessment will be conducted during the next Operating Permit Renewal process. The 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:

This permit application requests to de-rate a NG Boiler (U19-E389) 103 MMBtu/hr NG boiler in Building 362 to 98.52 MMBtu/hr and revise the applicable permit conditions by incorporating the New Source Performance Standards (NSPS) Subpart Dc.

This modification results in facility-wide potential emissions decrease of 0.6 tons per year of volatile organic compounds (VOC), 0.1 tons per year of carbon monoxide (CO), 0.2 tons per year of nitrogen oxides (NOx), 0.002 tons per year of sulfur dioxide (SO₂), and an increase of 0.24 tons per year of total suspended particulate matter (TSP), and 0.24 tons per year of particulate matter less than or equal to 10 microns in size (PM₁₀).

STATEMENT OF BASIS for JOINT BASE MCGUIRE-DIX-LAKEHURST (LAKEHURST)

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 78897 / Permit Activity Number: BOP230001

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)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs (total)	CO _{2e} (total)
Current Permit	19.8	62.8	60.6	0.728	4.45	4.41	2.76	--	0.008	74,665
Proposed Permit	19.2	62.6	60.5	0.726	4.69	4.65	2.76	--	0.008	74,665
Change (+ / -)	-0.6	-0.2	-0.1	-0.002	0.24	0.24	--	--	--	--

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. 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:

- 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 boiler U19-E389, the facility monitors fuel use and hours of operation as the surrogate for the long-term (TPY) emission limits for VOC, NO_x, CO, SO₂, TSP, PM-10 and PM-2.5. Surrogate monitoring for the short-term (lb/hr) emission limits are combustion process adjustment for NO_x and CO.

- 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.

STATEMENT OF BASIS for JOINT BASE MCGUIRE-DIX-LAKEHURST (LAKEHURST)

TITLE V OPERATING PERMIT SIGNIFICANT MODIFICATION

Program Interest (PI): 78897 / Permit Activity Number: BOP230001

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 the Federal regulations listed below.

NSPS Subpart A: General Provisions

NSPS Subpart Dc: Small Industrial -Commercial institutional steam generating units combusting Natural gas.

The Greenhouse Gas (GHG) emissions from this facility are 74,665 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 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.

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