

STATEMENT OF BASIS for EAGLE POINT POWER GENERATION LLC

TITLE V OPERATING PERMIT RENEWAL AND MINOR MODIFICATION

Program Interest (PI): 56220 / Permit Activity Number: BOP230002

I. FACILITY INFORMATION

Eagle Point Power Generation LLC is located at 1250 Crown Pt Rd, West Deptford Twp, Gloucester County and consists of two cogeneration gas turbines. The facility is owned and operated by Eagle Point Power Generation, LLC.

The facility is classified as a major facility based on its potential to emit 247 tons per year of nitrogen oxide (NO_x) and 26.4 tons per year of VOCs.

This permit allows individual hazardous air pollutants to be emitted at a rate not to exceed: 456 pounds per year of acetaldehyde, 72.8 pounds per year of acrolein, 3.6 pounds per year of arsenic, 152 pounds per year of benzene, 0.1 pounds per year of beryllium, 9.91 pounds per year of 1,3 butadiene, 1.54 pounds per year of cadmium, 364 pounds per year of ethylbenzene, 8080 pounds per year of formaldehyde, 4.5 pounds per year of lead, 24 pounds per year of manganese, 25.7 pounds per year of naphthalene, 1.48 pounds per year of nickel, 37.3 pounds per year of polynuclear aromatic hydrocarbons and 330 pounds per year of propylene oxide.

VOC emissions are being corrected to include formaldehyde emissions previously not accounted for. This emission increase is meant to capture emissions already present, and no new actual emissions are being generated. As a result, the Department is not revisiting the applicability of State of The Art (N.J.A.C. 7:27-22.35) and Federal New Source Review (40 CFR 52.21-PSD and N.J.A.C. 7:27-18).

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 includes: A diesel fire pump, a caustic storage tank, a sulfuric acid storage tank and two cogeneration gas turbines each equipped with a catalytic oxidizer.

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.

A Facility-Wide 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 Renewal with Minor Modification and includes the following changes:

- i) Updated the Facility wide requirements (FC) section of the compliance plan.
- ii) Updated Section B, General Provisions and Authority of the Permit Text.
- iii) Updated the stack testing requirements to conduct stack testing every 5 years from the last test. Monitoring, recordkeeping and submittal requirements were revised accordingly.
- iv) Included HAPs emissions above the new lower reporting thresholds in N.J.A.C. 7:27-17. HAPS added include: 1,3-Butadiene, Naphthalene, Acetaldehyde, Ethylbenzene, Propylene oxide,

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Arsenic, Beryllium, Cadmium, Manganese, Nickel and Lead. These are not new emissions, but the facility was not previously required to include these in the permit due to higher reporting thresholds for these HAPs.

- v) Updated the VOC emissions to include formaldehyde emissions.
- vi) Updated the descriptions for IS3 and IS4 to match the facility's nomenclature.
- vii) Removed the following two requirements, References #24 and #25 at U99, OS Summary on facility's request. These two requirements were for the addition of two parameters, the projected actual heat input, 8,706,969 MMBTU, and the projected actual annual NO_x emissions 114.02 tons per year, to the permit, BOP140001, as part of Prevention of Significant Deterioration (PSD) applicability analysis for the installation of the second steam turbine at the facility. Pursuant to PSD regulations at 40 CFR 52.21(r)(6)(iii), the facility was required to monitor these two parameters, the projected actual annual heat input and the projected actual annual NO_x emissions, for a period of 5 years from the date the regular operations resumed following the installation of the second steam turbine. Regular operations resumed on May 27th, 2016.
 - Reference #24: Annual heat input <= 8,706,969 MMBtu. The owner or operator shall monitor and record the heat input, in MMBtu per year, for a period of 5 years following resumption of regular operations after the change (i.e., installation of the second steam turbine).
 - Reference #25: NO_x emissions <= 114.02 tons per year. The owner or operator shall calculate and record the annual NO_x emissions, in tons per year, for a period of 5 years following resumption of regular operations after the change (i.e., installation of the second steam turbine).
- viii) Added requirements for the Catalytic Oxidizers for the 2 turbines at CD11 and CD12.
- ix) Updated the 40 CFR 63 subpart ZZZZ (MACT ZZZZ) requirements for the Diesel fired Fire Pump at U103, OS summary.

This renewal will also change the allowable 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	22.4	247	96.5	13.2	43.3	90.8	90.8		4.17	1,028,070
Proposed Permit	26.4	247	96.5	13.2	43.3	90.8	90.8		4.78	1,028,070
Change (+ / -)	+4	0.00	0.00	0.00	0.00	0.00	0.00		0.61	0.00

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 sodium hydroxide 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 permit action.

V. EMISSION OFFSET REQUIREMENTS

This permit action is not subject to Emission Offset requirements.

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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.

For the fixed roof storage tanks U101 and U102, the facility monitors the throughput (gal/year), as surrogates for the long-term sulfuric acid and sodium hydroxide (TPY) emission limits. The facility monitors the throughput (gal/delivery) as surrogates for the short-term (lb/hr) emission limits.

For the emergency fire pump U103, the facility monitors the operating time on the fire pump hour meter as a surrogate for the long-term emissions of VOC, NOx, CO, TSP, PM-10 and PM-2.5.

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.

VII. 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>

The facility is subject to Federal regulations listed below.

40 CFR 60 Subpart A:	General Provisions
40 CFR 60 Subpart KKKK:	Standards of Performance for Stationary Combustion Turbines
40 CFR 63 Subpart A:	General Provisions
40 CFR 63 Subpart ZZZZ:	NESHAPS for Stationary Reciprocating Internal Combustion Engines
40 CFR 72:	Acid Rain Program

The Greenhouse Gas (GHG) emissions from this facility are 1,028,070 TPY CO₂e and there is no GHG emissions increase. This renewal and 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

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review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

The facility has submitted a timely and complete application to renew their operating permit and an application shield is in effect.

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.

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.

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.

Table 1 - Operating Permit Revision History

New Jersey Department of Environmental Protection

Operating Permit Revision History

EAGLE POINT POWER GENERATION LLC PI 56220

Permit Activity Number	Type of Revision	Description of Revision	Final Action Date
BOP230001	Minor Modification	<p>Minor modification to incorporate the requirements of N.J.A.C. § 7:27F Subchapter 2 "Carbon Dioxide Emission Reductions from Electric Generating Units".</p> <p>The combustion turbine units are "existing electric generating units" (EGU) as defined in N.J.A.C. § 7:27F-2.1. Existing EGUs must comply with the following emission limits:</p> <ul style="list-style-type: none"> - 1,700 lb CO₂/MWh gross energy output on or before June 1, 2024; - 1,300 lb CO₂/MWh gross energy output on or before June 1, 2027; and - 1,000 lb CO₂/MWh gross energy output on or before June 1, 2035; <p>The facility will monitor rolling 12-operating month lb CO₂ per MWh emissions in accordance with § 7:27F-2.3(c), except during natural gas curtailment periods.</p>	10/17/2023
BOP210001	Administrative Amendment	This Amendment is to change the Responsible Official to Vito Genna.	7/27/2021
BOP200001	Administrative Amendment	This Amendment is to record address changes for the Environmental Officer, Owner and Operator.	5/7/2020
BOP190001	Minor Modification	<p>This modification comprises two parts:</p> <ol style="list-style-type: none"> 1. Incorporate the Regional Greenhouse Gas Initiative (RGGI) requirements for combustion cycle turbines GT1 and GT2. 2. Return the ULSD NO_x limit of 24.58 tpy to the permit. (This limit was inadvertently removed). 	1/21/2020

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