



State of New Jersey

Department of Environmental Protection

Air Quality, Energy and Sustainability

Division of Air Quality

Bureau of Stationary Sources

401 E. State Street, 2nd Floor, P.O. Box 420, Mail Code 401-02

Trenton, NJ 08625-0420

PHILIP D. MURPHY

Governor

CATHERINE R. McCABE

Commissioner

SHEILA Y. OLIVER

Lt. Governor

Air Pollution Control Operating Permit Renewal with Significant Modification

Permit Activity Number: BOP160004

Program Interest Number: 08857

Mailing Address	Plant Location
RICHARD GRUBB VICE PRESIDENT, PROJECT MANAGEMENT NEWARK ENERGY CENTER LLC 955 DELANCY ST Newark, NJ 07105	NEWARK ENERGY CENTER 955 Delancy St Newark Essex County

Initial Operating Permit Approval Date: November 1, 2012

Operating Permit Approval Date: DRAFT

Operating Permit Expiration Date: October 31, 2022

AUTHORITY AND APPLICABILITY

The New Jersey Department of Environmental Protection (Department) approves and issues this Air Pollution Control Operating Permit under the authority of Chapter 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). This permit is issued in accordance with the air pollution control permit provisions promulgated at Title V of the Federal Clean Air Act, 40 CFR 70, Air Pollution Control Act codified at N.J.S.A. 26:2C and New Jersey State regulations promulgated at N.J.A.C. 7:27-22.

The Department approves this operating permit based on the evaluation of the certified information provided in the permit application that all equipment and air pollution control devices regulated in this permit comply with all applicable State and Federal regulations. The facility shall be operated in accordance with the conditions of this permit. This operating permit supersedes any previous Air Pollution Control Operating Permits issued to this facility by the Department including any general operating permits, renewals, significant modifications, minor modifications, seven-day notice changes or administrative amendments to the permit.

Changes made through this permit activity are provided in the Reason for Application.

PERMIT SHIELD

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17.

COMPLIANCE SCHEDULES

This operating permit does not include compliance schedules as part of the approved compliance plan.

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

The permittee shall submit to the Department and to United States Environmental Protection Agency (US EPA) periodic compliance certifications, in accordance with N.J.A.C. 7:27-22.19. **The annual compliance certification** is due to the Department and EPA within 60 days after the end of each calendar year during which this permit was in effect. **Semi-annual deviation reports** relating to compliance testing and monitoring are due to the Department within 30 days after the end of the semi-annual period. The schedule and additional details for these submittals are available in Subject Item - FC, of the Facility Specific Requirements of this permit.

ACCESSING PERMITS

The facility's current approved operating permit and any previously issued permits (e.g. superseded, expired, or terminated) are available for download in PDF format at: <http://www.nj.gov/dep/aqpp>. After accessing the website, click on "Approved Operating Permits" listed under "Reports" and then type in the Program Interest (PI) Number as instructed on the screen. If needed, the RADIUS file for your permit, containing Facility Specific Requirements (Compliance Plan), Inventories and Compliance Schedules can be obtained by contacting the Helpline number given below. RADIUS software, instructions, and help are available at the Department's website at <http://www.nj.gov/dep/aqpp>.

HELPLINE

The Operating Permit Helpline is available for any questions at (609) 633-8248 from 9:00 AM to 4:00 PM Monday to Friday.

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

The permittee is responsible for submitting a timely and administratively complete operating permit renewal application pursuant to N.J.A.C. 7:27-22.30. Only applications which are timely and administratively complete are eligible for an application shield. The details on the contents of the renewal application, submittal schedule, and application shield are available in Section B - General Provisions and Authorities of this permit.

COMPLIANCE ASSURANCE MONITORING

Facilities that are subject to Compliance Assurance Monitoring (CAM), pursuant to 40 CFR 64, shall develop a CAM Plan for modified equipment as well as existing sources. The rule and guidance on how to prepare a CAM Plan can be found at EPA's website: <https://www.epa.gov/air-emissions-monitoring-knowledge-base/compliance-assurance-monitoring>. In addition, CAM Plans must be included as part of the permit renewal application. Facilities that do not submit a CAM Plan may have their permit applications denied, pursuant to N.J.A.C. 7:27-22.3.

ADMINISTRATIVE HEARING REQUEST

If, in your judgment, the Department is imposing any unreasonable condition of approval, you may contest the Department's decision and request an adjudicatory hearing pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.A.C. 7:27-22.32(a). All requests for an adjudicatory hearing must be received in writing by the Department within 20 calendar days of the date you receive this letter. The request must contain the information specified in N.J.A.C. 7:27-1.32 and the information on the [NJ04 - Administrative Hearing Request Checklist and Tracking Form](#) available at <https://www.state.nj.us/dep/aqpp/applying.html>.

If you have any questions regarding this permit approval, please call Michael Hogan at (609) 633-1124.

Approved by:

David Owen

Enclosure

CC: Suilin Chan, United States Environmental Protection Agency, Region 2

Facility Name: NEWARK ENERGY CENTER
Program Interest Number: 08857
Permit Activity Number: BOP160004

TABLE OF CONTENTS

<u>Section A</u>	POLLUTANT EMISSIONS SUMMARY
<u>Section B</u>	GENERAL PROVISIONS AND AUTHORITIES
<u>Section C</u>	STATE-ONLY APPLICABLE REQUIREMENTS
<u>Section D</u>	FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

- FACILITY SPECIFIC REQUIREMENTS – PAGE INDEX
- REASON FOR APPLICATION
- FACILITY SPECIFIC REQUIREMENTS (COMPLIANCE PLAN)
- FACILITY PROFILE (ADMINISTRATIVE INFORMATION)
- INSIGNIFICANT SOURCE EMISSIONS
- EQUIPMENT INVENTORY
- EQUIPMENT DETAILS
- CONTROL DEVICE INVENTORY
- CONTROL DEVICE DETAILS
- EMISSION POINT INVENTORY
- EMISSION UNIT / BATCH PROCESS INVENTORY
- SUBJECT ITEM GROUP INVENTORY
- ADDITIONAL ATTACHMENTS
 - Appendix I: Acid Rain Permit
 - Appendix II: CSAPR Permit

Section A

Facility Name: NEWARK ENERGY CENTER
Program Interest Number: 08857
Permit Activity Number: BOP160004

POLLUTANT EMISSIONS SUMMARY

Table 1: Total emissions from all Significant Source Operations¹ at the facility.

Facility's Potential Emissions from all Significant Source Operations (tons per year)										
Source Categories	VOC (total)	NO _x	CO	SO ₂	TSP (total)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs* (total)	CO _{2e} ²
Emission Units Summary	34.8	138	482	19.7	67.0	101	97.5	N / A	4.99	
Batch Process Summary	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	
Group Summary	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	
Total Emissions	34.8	138	482	19.7	67.0	101	97.5	N / A	4.99	2,157,259

Table 2: Estimate of total emissions from all Insignificant Source Operations¹ and total emissions from Non-Source Fugitives at the facility.

Emissions from all Insignificant Source Operations and Non-Source Fugitive Emissions (tons per year)									
Source Categories	VOC (total)	NO _x	CO	SO ₂	TSP (total)	PM ₁₀ (total)	PM _{2.5} (total)	Pb	HAPs (total)
Insignificant Source Operations	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A
Non-Source Fugitive Emissions ³	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A	N / A

VOC: Volatile Organic Compounds TSP: Total Suspended Particulates PM_{2.5}: Particulates under 2.5 microns
 NO_x: Nitrogen Oxides Other: Any other air contaminant Pb: Lead
 CO: Carbon Monoxide regulated under the Federal CAA HAPs: Hazardous Air Pollutants
 SO₂: Sulfur Dioxide PM₁₀: Particulates under 10 microns CO_{2e}: Carbon Dioxide equivalent
 N/A: Indicates the pollutant is not emitted or is emitted below the reporting threshold specified in N.J.A.C. 7:27-22, Appendix, Table A and N.J.A.C. 7:27-17.9(a).

*Emissions of individual HAPs are provided in Table 3 on the next page.
 Emissions of "Other" air contaminants are provided in Table 4 on the next page.

¹ Significant Source Operations and Insignificant Source Operations are defined at N.J.A.C. 7:27-22.1.

² Total CO_{2e} emissions for the facility that includes all Significant Source Operations (emission units, batch process, group) and Insignificant Source Operations.

³ Non-Source Fugitive Emissions are defined at N.J.A.C. 7:27-22.1 and are included if the facility falls into one or more categories listed at N.J.A.C. 7:27-22.2(a)2.

Section A

Facility Name: NEWARK ENERGY CENTER
Program Interest Number: 08857
Permit Activity Number: BOP160004

POLLUTANT EMISSIONS SUMMARY

Table 3: Summary of Hazardous Air Pollutants (HAP) Emissions from Significant Source Operations ⁴:

HAP	TPY
Acrolein	0.0582
Benzene	0.233
Formaldehyde	2.15
Polycyclic Organic Matter	0.0425
Toluene	2.51

Table 4: Summary of "Other" air contaminants emissions from Significant Source Operations:

Other Air Contaminant	TPY
H2SO4	10.5
Ammonia (NH3)	119
Methane	153

⁴ Do not sum the values below for the purpose of establishing a total HAP potential to emit. See previous page for the allowable total HAP emissions.

Section B

Facility Name: NEWARK ENERGY CENTER

Program Interest Number: 08857

Permit Activity Number: BOP160004

GENERAL PROVISIONS AND AUTHORITIES

1. No permittee shall allow any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in a quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or which would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant that occurs only in areas over which the permittee has exclusive use or occupancy. Requirements relative only to nuisance situations, including odors, are not considered federally enforceable. [N.J.A.C. 7:27-22.16(g)8]
2. Any deviation from operating permit requirements which results in a release of air contaminants shall be reported to the Department as follows:
 - a. If the air contaminants are released in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints, the permittee shall report the release to the Department:
 - i. Immediately on the Department hotline at 1-(877) 927-6337, pursuant to N.J.S.A. 26:2C-19(e); and
 - ii. As part of the compliance certification required in N.J.A.C. 7:27-22.19(f). However, if the deviation is identified through source emissions testing, it shall be reported through the source emissions testing and monitoring procedures at N.J.A.C. 7:27-22.18(e)3; or
 - b. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, the permittee shall report the release to the Department as part of the compliance certification required in N.J.A.C. 7:27-22.19(f), except for deviations identified by source emissions testing reports, which shall be reported through the procedures at N.J.A.C. 7:27-22.18(e)3; or
 - c. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, and the permittee intends to assert the affirmative defense afforded by N.J.A.C. 7:27-22.16(l), the violation shall be reported by 5:00 PM of the second full calendar day following the occurrence, or of becoming aware of the occurrence, consistent with N.J.A.C. 7:27-22.16(l). [N.J.A.C. 7:27-22.19(g)]
3. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any non-compliance with a permit condition constitutes a violation of the New Jersey Air Pollution Control Act N.J.S.A. 26:2C-1 et seq., or the CAA, 42 U.S.C. §7401 et seq., or both, and is grounds for enforcement action; for termination, revocation and reissuance, or for modification of the operating permit; or for denial of an application for a renewal of the operating permit. [N.J.A.C. 7:27-22.16(g)1]
4. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of its operating permit. [N.J.A.C. 7:27-22.16(g)2]
5. This operating permit may be modified, terminated, or revoked for cause by the EPA pursuant to 40 CFR 70.7(g) and revoked or reopened and modified for cause by the Department pursuant to N.J.A.C. 7:27-22.25. [N.J.A.C. 7:27-22.16(g)3]

6. The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this operating permit; or to determine compliance with the operating permit. [N.J.A.C. 7:27-22.16(g)4]
7. The filing of an application for a modification of an operating permit, or of a notice of planned changes or anticipated non-compliance, does not stay any operating permit condition. [N.J.A.C. 7:27-22.16(g)5]
8. The operating permit does not convey any property rights of any sort, or any exclusive privilege. [N.J.A.C. 7:27-22.16(g)6]
9. Upon request, the permittee shall furnish to the Department copies of records required by the operating permit to be kept. [N.J.A.C. 7:27-22.16(g)7]
10. The Department and its authorized representatives shall have the right to enter and inspect any facility subject to N.J.A.C. 7:27-22, or portion thereof, pursuant to N.J.A.C. 7:27-1.31. [N.J.A.C. 7:27-22.16(g)9]
11. The permittee shall pay fees to the Department pursuant to N.J.A.C. 7:27. [N.J.A.C. 7:27-22.16(g)10]
12. Each permittee shall maintain records of all source emissions testing or monitoring performed at the facility and required by the operating permit in accordance with N.J.A.C. 7:27-22.19. Records shall be maintained, for at least five years from the date of each sample, measurement, or report. Each permittee shall maintain all other records required by this operating permit for a period of five years from the date each record is made. At a minimum, source emission testing or monitoring records shall contain the information specified at N.J.A.C. 7:27-22.19(b). [N.J.A.C. 7:27-22.19(a) and N.J.A.C. 7:27-22.19(b)]
13.
 - a. For emergencies (as defined at 40 CFR 70.6(g)(1)) that result in non-compliance with any promulgated federal technology-based standard such as NSPS, NESHAPS, or MACT, a federal affirmative defense is available, pursuant to 40 CFR 70. To assert a federal affirmative defense, the permittee must use the procedures set forth in 40 CFR 70. The affirmative defense provisions described below may not be applied to any situation that caused the Facility to exceed any federally delegated regulation, including but not limited to NSPS, NESHAP, or MACT.
 - b. For situations other than those covered above, an affirmative defense is available for a violation of a provision or condition of the operating permit only if:
 - i. The violation occurred as a result of an equipment malfunction, an equipment startup or shutdown, or during the performance of necessary equipment maintenance; and
 - ii. The affirmative defense is asserted and established as required by N.J.S.A. 26:2C-19.1 through 19.5 and any implementing rules. [N.J.A.C. 7:27-22.16(l)]
14. Each permittee shall meet all requirements of the approved source emissions testing and monitoring protocol during the term of the operating permit. Whenever the permittee makes a replacement, modification, change or repair of a certified CEMS or COMS that may significantly affect the ability of the system to accurately measure or record data, the permittee must recertify the CEMS or COMS in accordance with Section V.B. and Appendix E of Technical Manual 1005. The permittee is responsible for contacting the Emission Measurement Section to determine the need for recertification and/or to initiate the recertification process. The permittee is responsible for any downtime associated with the replacement, modification, change or repair of the CEMS or COMS. [N.J.A.C. 7:27-22.18(j)]
15. Each owner and each operator of any facility, source operation, or activity to which this permit applies is responsible for ensuring compliance with all requirements of N.J.A.C. 7:27-22. If the owner and operator are separate persons, or if there is more than one owner or operator, each owner and each operator is jointly and severally liable for any fees due under N.J.A.C. 7:27-22, and for any penalties for violation of N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.3]

16. In the event of a challenge to any part of this operating permit, all other parts of the permit shall continue to be valid. [N.J.A.C. 7:27-22.16(f)]
17. Unless specifically exempted from permitting, temporary mobile equipment for short-term activities may be periodically used at major facilities, on site for up to 90 days if the requirements listed below, (a) through (h) are satisfied.
 - a. The permittee will ensure that the temporary mobile equipment will not be installed permanently or used permanently on site.
 - b. The permittee will ensure that the temporary mobile equipment will not circumvent any State or Federal rules and regulations, even for a short period of time, and the subject equipment will comply with all applicable performance standards.
 - c. The permittee cannot use temporary mobile equipment unless the owner or operator of the subject equipment has obtained and maintains an approved Air Pollution Control Permit, issued pursuant to N.J.A.C. 7:27-8 or 22, prior to bringing the temporary mobile equipment to operate at the major facility.
 - d. The permittee is responsible for ensuring the temporary mobile equipment's compliance with the terms and conditions specified in its approved Air Pollution Control Permit when the temporary mobile equipment operates on the property of the permittee.
 - e. The permittee will ensure that temporary mobile equipment utilized for short-term activities will not operate on site for more than a total of 90 days during any calendar year.
 - f. The permittee will keep on site a list of temporary mobile equipment being used at the facility with the start date, end date, and record of the emissions from all such equipment (amount and type of each air contaminant) no later than 30 days after the temporary mobile equipment completed its job in accordance with N.J.A.C. 7:27-22.19(i)3.
 - g. Emissions from the temporary mobile equipment must be included in the emission netting analysis required of the permittee by N.J.A.C. 7:27-18.7. This information is maintained on site by the permittee and provided to the Department upon request in accordance with existing applicable requirements in the FC Section of its Title V permit.
 - h. Where short-term activities (employing temporary mobile equipment) will reoccur on at least an annual basis, the permittee is required to include such activities (and the associated equipment) within one year of the first use, in its Title V permit through the appropriate modification procedures.
18. The permittee shall ensure that no air contaminant is emitted from any significant source operation at a rate, calculated as the potential to emit, that exceeds the applicable threshold for reporting emissions set forth in the Appendix to N.J.A.C. 7:27-22 or 7:27-17.9(a), unless emission of the air contaminant is authorized by this operating permit. [N.J.A.C. 7:27-22.3(c)]
19. Consistent with the provisions of N.J.A.C. 7:27-22.3(e), the permittee shall ensure that all requirements of this operating permit are met. In the event that there are multiple emission limitations, monitoring, recordkeeping, and/or reporting requirements for a given source operation, the facility must comply with all requirements, including the most stringent.
20. Consistent with the provisions of N.J.A.C. 7:27-22.9(c), the permittee shall use monitoring of operating parameters, where required by the compliance plan, as a surrogate for direct emissions testing or monitoring, to demonstrate compliance with applicable requirements.
21. The permittee is responsible for submitting timely and administratively complete operating permit applications:

Administrative Amendments [N.J.A.C. 7:27-22.20(c)];
Seven-Day Notice changes [N.J.A.C. 7:27-22.22(e)];
Minor Modifications [N.J.A.C. 7:27-22.23(e)];
Significant Modifications [N.J.A.C. 7:27-22.24(e)]; and
Renewals [N.J.A.C. 7:27-22.30(b)].

22. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website <http://www.nj.gov/dep/aqpp/applying.html> (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal at: <http://njdeponline.com/>. The application is considered timely if it is received at least 12 months before the expiration date of the operating permit. To be deemed administratively complete, the renewal application shall include all information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies can be identified and addressed to ensure that the application is administratively complete by the renewal deadline. Only renewal applications which are timely and administratively complete are eligible for an application shield.
23. Except as allowed in Technical Manual 1005, or otherwise allowed by the Department in this permit or in written guidelines/ procedures issued or approved by the Department, process monitors required by the Compliance Plan included in this permit must be operated at all times when the associated process equipment is operating. The permittee must keep a service log to document any outage.
24. Consistent with the provisions of N.J.A.C. 7:27-22.3(s), Except as otherwise provided in this subchapter, the submittal of any information or application by a permittee including, but not limited to, an application or notice for any change to the operating permit, including any administrative amendment, any minor or significant modification, renewal, a notice of a seven-day notice change, a notice of past or anticipated noncompliance, does not stay any operating permit condition, nor relieve a permittee from the obligation to obtain other necessary permits and to comply with all applicable Federal, State, and local requirements.
25. For all source emissions testing performed at the facility, the phrase "worst case conditions without creating an unsafe condition" used in the enclosed compliance plan is consistent with EPA's National Stack Testing Guidance, dated April 27, 2009, where all source emission testing performed at the facility shall be under the representative (normal) conditions that:
 - i. Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
 - ii. Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.
26. A Permittee may seek the approval of the Department for a delay in testing required pursuant to this permit by submitting a written request to the appropriate Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.18(k). A Permittee may also seek advanced approval for a longer period for submittal of a source emissions test report required by the permit by submitting a request to the Department's Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.18(k) and N.J.A.C. 7:27-22.19]
27. Applicable requirements derived from an existing or terminated consent decree with EPA will not be changed without advance consultation by the Department with EPA. N.J.A.C. 7:27-22.3(uu).

Section C

Facility Name: NEWARK ENERGY CENTER

Program Interest Number: 08857

Permit Activity Number: BOP160004

STATE-ONLY APPLICABLE REQUIREMENTS

N.J.A.C. 7:27-22.16(b)5 requires the Department to specifically designate as not being federally enforceable any permit conditions based only on applicable State requirements. The applicable State requirements to which this provision applies are listed in the table titled "State-Only Applicable Requirements."

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

<u>SECTION</u>	<u>SUBJECT ITEM</u>	<u>ITEM #</u>	<u>REF. #</u>
B	---	1	---
B	---	13b	---
D	FC	---	3
D	FC	---	9
D	GR10	---	ALL

Section D

Facility Name: NEWARK ENERGY CENTER
Program Interest Number: 08857
Permit Activity Number: BOP160004

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

Subject Item and Name **Page Number**

Facility (FC):

FC	1
----	---

Insignificant Sources (IS):

IS NJID	IS Description	
IS1	(2) Fuel Oil Storage Tanks (350 gallon and 550 gallon)	5
IS3	Sulfuric Acid Storage Tank - (1) 20,000 gal tank	6

Groups (GR):

GR NJID	GR Designation	GR Description	
GR1	Emissions	Facility Wide Annual Emissions	8
GR2	GHG	GHG	14
GR10	RGGI	RGGI Rule (For CC Turbines in U1)	20

Emission Units (U):

U NJID	U Designation	U Description	
U1	2 Turbine/DB	2 Turbines, each with HRSG	30
U2	Cooling Tower	Cooling Tower	106
U3	Em Gen	1.5 MW Emergency Generator	113
U4	Fire Pump	270 HP Fire Pump	127

**New Jersey Department of Environmental Protection
Reason for Application**

Permit Being Modified

Permit Class: BOP **Number:** 180001

Description of Modifications: Specific changes made:

1. Remove auxiliary boiler (U1, OS13); Reduce natural gas limit (U1, OS Summary (OSS)) and annual emission limits (U1, OSS; GR1 and GR2) accordingly
2. Change emission unit U1 facility designation from "Cogen Plant" to "2 Turbine/DB"; This designation better defines U1.
3. Reduce PM-10 and PM-2.5 stack test frequency for turbines/DBs (U1), from quarterly to permit term. The current permit allows the permittee to request reduced test frequency once 8 consecutive quarterly stack tests demonstrate emissions less than 80% of the permit limit; This requirement has been met
4. Add Polycyclic Organic Matter limits for U1, as potential emissions exceed the reporting threshold; Reduce acrolein limit for U1, OS3/OS4 which was previously miscalculated
5. Reduce total HAPs limit for U1 from 8.22 tpy to 4.99 tpy to account for only the HAPs that are emitted above the Department's pre-2018 reporting threshold pursuant to current DEP policy. Pursuant to N.J.A.C. 7:27-22.30(l), the HAP emissions in the operating permit must be updated, based on N.J.A.C. 7:27-17.9(a) reporting thresholds at the next permit renewal
6. Add hourly heat input, SO₂, TSP, PM-10, PM_{2.5} and Ammonia emission limits to U1 start-up and shut down operating scenarios; All limits equal to steady state limits except ammonia which is 10 ppmdv @ 15% O₂
7. Remove initial stack test requirement for U1; Testing was performed and compliance was demonstrated
8. Update monitoring requirement citation for U1 N.J.A.C 7:27-16.9(b) CO limits from "N.J.A.C. 7:27-22.16(o)" to "N.J.A.C 7:27-16.23(a)1"
9. Remove NSPS conditions with initial only compliance requirements (notification of initial startup, notification of achieving maximum production rate, initial performance testing, and initial opacity monitoring) from U1 because these requirements have been fulfilled
10. Change the compliance period for U1 N.J.A.C 7:27-22.16(a) based SO₂ and TSP emission limits from "each of 3 Department validated stack test runs" to "the average of three Department validated stack test runs" pursuant to current DEP policy
11. Combine (3) permit conditions, which regulate the type and amount of chemical additives that can be used to treat the cooling tower water, into a single permit condition, in U2, OSS
12. Update list of allowable cooling tower water treatment chemicals in U2, OSS; None of these chemicals are HAPs
13. Correct the N.J.A.C. 7:27-6.2(a) limit in U2, OSS, which was previously miscalculated; The more stringent N.J.A.C.7:27-22.16(a) particulate limits (U2, OS1) are unchanged
14. Add a compliance period of "based on 1 hour block average" to the U2, OS1 requirement to continuously monitor the cooling tower water with an oxidation / reduction potential meter; This is consistent with other NJ permits
15. Reduce limit for testing and maintenance operation of the emergency generator (U3) and emergency fire pump (U4) from 200 hr/yr to 100 hr/yr, each; Reduce annual emission limits (OSS; GR1 and GR2) accordingly
16. Remove NSPS Kb requirement from IS1 as this regulation doesn't apply to these tanks
17. Remove GR1 permit requirement to obtain emission offsets for NO_x and VOC, in accordance with N.J.A.C 7:27-18; These offsets have been obtained

New Jersey Department of Environmental Protection
Reason for Application

18. Change record keeping requirement for the turbine net heat rate (GR2), in order to require the facility to maintain the calculation that demonstrates compliance with the heat rate limit rather than just demonstrate compliance initially
19. Create Group 10 with RGGI requirements for the turbines
20. Delete all 0.05% sulfur content in fuel oil limits (N.J.A.C 7:27-9.2) which expired on June 30, 2016 and have since been replaced by a 0.0015% limit that is already included in the permit
21. Round permit limits to 3 significant digits, pursuant to current DEP policy
22. Add summary of all applicable Federal regulations to OSS for each emission unit
23. Clarify that all VOC permit limits include formaldehyde emissions

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Subject Item: FC

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	General Provisions: The permittee shall comply with all applicable provisions of N.J.A.C. 7:27-1. [N.J.A.C. 7:27- 1]	None.	None.	None.
2	Control and Prohibition of Open Burning: The permittee is prohibited from open burning of rubbish, garbage, trade waste, buildings, structures, leaves, other plant life and salvage. Open burning of infested plant life or dangerous material may only be performed with a permit from the Department. [N.J.A.C. 7:27- 2]	None.	None.	Obtain an approved permit: Prior to occurrence of event (prior to open burning). [N.J.A.C. 7:27- 2]
3	Prohibition of Air Pollution: The permittee shall not emit into the outdoor atmosphere substances in quantities that result in air pollution as defined at N.J.A.C. 7:27-5.1. [N.J.A.C. 7:27- 5]	None.	None.	None.
4	Prevention and Control of Air Pollution Control Emergencies: Any person responsible for the operation of a source of air contamination set forth in Table 1 of N.J.A.C. 7:27-12 is required to prepare a written Standby Plan, consistent with good industrial practice and safe operating procedures, and be prepared for reducing the emission of air contaminants during periods of an air pollution alert, warning, or emergency. Any person who operates a source not set forth in Table 1 of N.J.A.C. 7:27-12 is not required to prepare such a plan unless requested by the Department in writing. [N.J.A.C. 7:27-12]	None.	None.	Comply with the requirement: Upon occurrence of event. Upon proclamation by the Governor of an air pollution alert, warning, or emergency, the permittee shall put the Standby Plan into effect. In addition, the permittee shall ensure that all of the applicable emission reduction objectives of N.J.A.C. 7:27-12.4, Table I, II, and III are complied with whenever there is an air pollution alert, warning, or emergency. [N.J.A.C. 7:27-12]
5	Emission Offset Rules: The permittee shall comply with all applicable provisions of Emission Offset Rules. [N.J.A.C. 7:27-18]	None.	None.	None.
6	Emission Statements: The Permittee shall comply with all the applicable provisions of N.J.A.C. 7:27-21. [N.J.A.C. 7:27-21]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Compliance Certification: The permittee shall submit an annual Compliance Certification for each applicable requirement, pursuant to N.J.A.C. 7:27-22.19(f). [N.J.A.C. 7:27-22]	None.	None.	Submit an Annual Compliance Certification: Annually to the Department and to EPA within 60 days after the end of each calendar year during which this permit was in effect. The Compliance Certification shall be certified pursuant to N.J.A.C. 7:27-1.39 by the responsible official and submitted electronically through the NJDEP online web portal. The certification should be printed for submission to EPA. The NJDEP online web portal can be accessed at: http://www.state.nj.us/dep/online/ . The Compliance Certification forms and instructions for submitting to EPA are available by selecting Documents and Forms and then Periodic Compliance Certification. [N.J.A.C. 7:27-22]
8	Prevention of Air Pollution from Consumer Products and Architectural Coatings: The permittee shall comply with all applicable provisions of N.J.A.C. 7:27-24 and [N.J.A.C. 7:27-23]	None.	None.	None.
9	Any operation of equipment which causes off-property effects, including odors, or which might reasonably result in citizen's complaints shall be reported to the Department to the extent required by the Air Pollution Control Act, N.J.S.A. 26:2C-19(e). [N.J.S.A. 26: 2C-19(e)]	Other: Observation of plant operations. [N.J.S.A. 26: 2C-19(e)].	Other: Maintain a copy of all information submitted to the Department. [N.J.S.A. 26: 2C-19(e)].	Notify by phone: Upon occurrence of event. A person who causes a release of air contaminants in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints shall immediately notify the Department. Such notification shall be made by calling the Environmental Action Hotline at (877) 927-6337. [N.J.S.A. 26: 2C-19(e)]
10	Prevention of Significant Deterioration: The permittee shall comply with all applicable provisions of Prevention of Significant Deterioration (PSD). [40 CFR 52.21]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	The permittee shall comply with all applicable provisions of National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Asbestos, Subpart M. [40 CFR 61]	Other: Comply with 40 CFR 61.145 and 61.150 when conducting any renovation or demolition activities at the facility. [40 CFR 61].	Other: Comply with 40 CFR 61.153 when conducting any renovation or demolition activities at the facility. [40 CFR 61].	Comply with the requirement: Upon occurrence of event. The permittee shall comply with 40 CFR 61.153 when conducting any renovation or demolition activities at the facility. [40 CFR 61]
12	Protection of Stratospheric Ozone:1) If the permittee manufactures, transforms, destroys, imports, or exports a Class I or Class II substance, the permittee is subject to all the requirements as specified at 40 CFR 82, Subpart A; 2) If the permittee performs a service on motor "fleet" vehicles when this service involves an ozone depleting substance refrigerant (or regulated substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified at 40 CFR 82, Subpart B. 3) The permittee shall comply with the standards for labeling of products containing or manufactured with ozone depleting substances pursuant to 40 CFR 82, Subpart E. 4). The permittee shall comply with the standards for recycling and emission reductions of Class I and Class II refrigerants or a regulated substitute substance during the service, maintenance, repair, and disposal of appliances pursuant to 40 CFR 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B. 5) The permittee shall be allowed to switch from any ozone depleting substance to any alternative that is listed in the Significant New Alternative Program (SNAP) promulgated pursuant to 40 CFR 82, Subpart G. [40 CFR 82]	Other: Comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82].	Other: Comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82].	Comply with the requirement: Upon occurrence of event. The permittee shall comply with 40 CFR 82 Subparts A, B, E, F, and G. [40 CFR 82]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	<p>Deviation Reports: The permittee shall submit to the Department a certified six-month Deviation Report relating to testing and monitoring required by the operating permit. [N.J.A.C. 7:27-22.19(d)3], [N.J.A.C.7:27-22.19(e)], and [N.J.A.C. 7:27-22.19(c)]</p>	None.	<p>Other: The permittee shall maintain deviation reports for a period of five years from the date each report is submitted to the Department. [N.J.A.C.7:27-22.19(a)] and [N.J.A.C. 7:27-22.19(e)].</p>	<p>Submit a report: As per the approved schedule. The six-month deviation reports for the period from January 1 through June 30 shall be submitted by July 30 of the same calendar year, and for the period from July 1 through December 31, shall be submitted by January 30 of the following calendar year.</p> <p>The annual compliance certification required by N.J.A.C.7:27-22.19(f) may also be considered as your six-month Deviation Report for the period from July 1 – December 31, if submitted by January 30 of the following calendar year. The reports shall be certified pursuant to N.J.A.C. 7:27-1.39 by the responsible official and submitted electronically through the NJDEP online web portal.</p> <p>The NJDEP online web portal can be accessed at: http://www.state.nj.us/dep/online/ . The Compliance Certification forms are available by selecting Documents and Forms and then Periodic Compliance Certification. [N.J.A.C. 7:27-22]</p>
14	<p>Used Oil Combustion: No person shall combust used oil except as authorized pursuant to N.J.A.C. 7:27-20. [N.J.A.C. 7:27-20.2]</p>	None.	None.	<p>Comply with the requirement: Prior to occurrence of event (prior to burning used oil) either register with the Department pursuant to N.J.A.C. 7:27-20.3 or obtain a permit issued by the Department pursuant to N.J.A.C. 7:27-8 or 7:27-22, whichever is applicable. [N.J.A.C. 7:27-20.2(d)]</p>
15	<p>Prevention of Accidental Releases: Facilities producing, processing, handling or storing a chemical, listed in the tables of 40 CFR Part 68.130, and present in a process in a quantity greater than the listed Threshold Quantity, shall comply with all applicable provisions of 40 CFR 68. [40 CFR 68]</p>	<p>Other: Comply with 40 CFR 68. [40 CFR 68].</p>	<p>Other: Comply with 40 CFR 68. [40 CFR 68].</p>	<p>Other (provide description): Other. Comply with 40 CFR 68 as described in the Applicable Requirement. [40 CFR 68]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Subject Item: IS1 (2) Ultra Low Sulfur Distillate (ULSD) Storage Tanks (350 gallon and 550 gallon)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw (0.0015 % by weight). Maximum allowable sulfur content in No. 2 and lighter fuel oil. NOTE: This requirement is effective on and after July 1, 2016. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Subject Item: IS3 Sulfuric Acid Storage Tank - (1) 20,000 gal tank

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The operating temperature of the tank shall not be greater than 350 degrees F. [N.J.A.C. 7:27-22.1]	None.	None.	None.
2	The vapor pressure of the liquid, excluding the vapor pressure of water, shall be less than 0.02 psia at the liquid's actual temperature or at 70 degrees F, whichever is higher. [N.J.A.C. 7:27-22.1]	None.	None.	None.
3	The tank or vessel shall have no visible emissions, exclusive of water vapor, to the outdoor atmosphere. [N.J.A.C. 7:27-22.1]	None.	None.	None.
4	The tank or vessel shall not emit any air contaminants which may cause an odor detectable outside the property boundaries of the facility. [N.J.A.C. 7:27-22.1]	None.	None.	None.
5	The tank or vessel shall not be subject to any NESHAPS, MACT, or NSPS air pollution control standards, excluding the NSPS requirements to maintain a record of the contents of the tank or vessel, the period of storage of these contents, and the maximum true vapor pressure of the liquid stored. [N.J.A.C. 7:27-22.1]	None.	None.	None.
6	The tank's or vessel's potential to emit each TXS and each HAP shall not exceed the de minimis reporting thresholds as specified in Appendix to N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.1]	None.	None.	None.
7	The percentage by weight of all HAPs collectively in the raw material stored in the tank, or mixed or blended in the vessel, shall be less than 1.0 percent. [N.J.A.C. 7:27-22.1]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	The owner or operator shall have readily available upon Department request a statement certified in accordance with N.J.A.C. 7-27-1.39, signed by the responsible official, as defined at N.J.A.C. 7:27-1.4, that: (1) specifies the contents of the tank; (2) affirms that the tank or vessel meets the above applicable requirements and (3) attests that the tank or vessel is in compliance with all other applicable State or federal air pollution requirements. [N.J.A.C. 7:27-22.1]	None.	None.	None.
9	Tank content limited to sulfuric acid. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by review of tank contents delivery records per delivery.[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping by invoices / bills of lading once per delivery.[N.J.A.C. 7:27-22.16(o)].	None.
10	Sulfuric Acid Emissions from this storage tank must be included in the total annual sulfuric acid emissions calculations for the entire facility. The total facility-wide sulfuric acid emissions must comply with the emission cap in GR1 of the permit. [N.J.A.C. 7:27-22.16(a)]	<p>Sulfuric acid emissions from this storage tank shall be determined each month using EPA Tanks 4.0.9d software.</p> <p>A consecutive 12 month value shall be determined by adding the current months emissions to the total emissions from the previous 11 consecutive months.</p> <p>The consecutive 12 month value shall then be added to the total emissions from the rest of the facility to determine compliance with the facility wide emission cap in GR 1. Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]</p>	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Subject Item: GR1 Facility Wide Annual Emissions

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	NOx (Total) <= 138 tons/yr. Facility Wide Annual NOx (total) emissions from the facility shall include NOx emitted by the two turbines and duct burners, one emergency generator and one fire pump. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7:27-18.2(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
2	CO <= 482 tons/yr. Facility Wide Annual CO emissions from the facility shall include CO emitted by the two turbines and duct burners, one emergency generator and one fire pump. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
3	VOC (Total) <= 34.8 tons/yr. This limit includes Formaldehyde emissions. Facility Wide Annual VOC (total) emissions from the facility shall include VOC emitted by the two turbines and duct burners, one emergency generator and one fire pump. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.2(a)]	VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>SO₂ <= 19.7 tons/yr.</p> <p>Facility Wide Annual SO₂ emissions from the facility shall include SO₂ emitted by the two turbines and duct burners.</p> <p>Note: The SO₂ emissions from emergency diesel generator and fire water pump are below reporting thresholds of 0.05 lb/hr and therefore not included in this limit. . [N.J.A.C. 7:27-22.16(a)]</p>	<p>SO₂: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>SO₂: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
5	<p>TSP <= 67 tons/yr.</p> <p>Facility Wide Annual TSP(total) emissions from the facility shall include TSP emitted by the two turbines and duct burners, one emergency generator, one fire pump and one cooling tower. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U2, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
6	<p>PM-10 (Total) <= 101 tons/yr.</p> <p>Facility Wide Annual PM-10(total) emissions from the facility shall include PM-10 emitted by the two turbines and duct burners, one emergency generator, one fire pump and one cooling tower. [N.J.A.C. 7:27-22.16(a)] and . [40 CFR 52.21]</p>	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U2, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	<p>PM-2.5 (Total) <= 97.5 tons/yr.</p> <p>Facility Wide Annual PM-2.5(total) emissions from the facility shall include PM-2.5 emitted by the two turbines and duct burners, one emergency generator, one fire pump and one cooling tower. . [N.J.A.C. 7:27-22.16(a)]</p>	<p>PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be calculated by adding the annual emissions calculated at (U1, OS Summary), (U2, OS Summary), (U3, OS Summary), and (U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
8	<p>Ammonia <= 119 tons/yr.</p> <p>Facility Wide Annual Ammonia emissions from the facility shall include Ammonia emitted by the two combustion turbines and duct burners. This limit is based on steady state operation of each turbine, at ISO conditions, for the maximum permitted hr/yr. . [N.J.A.C. 7:27-22.16(a)]</p>	<p>Ammonia: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	<p>SO3 and H2SO4, as converted and expressed as H2SO4 <= 10.5 tons/yr.</p> <p>Facility Wide Annual H2SO4 emissions from the facility shall include H2SO4 emitted by the two turbines and duct burners (U1) and the sulfuric acid tank (IS3).</p> <p>Note: The H2SO4 emissions from emergency diesel generator and fire water pump are below reporting thresholds of 0.05 lb/hr and therefore not included in this limit. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceeding 11 months; monthly emissions shall be calculated as follows:</p> <p>Sulfuric Acid tons/month = (0.0006 lb/MMBtu x 1020 MMBtu/MMScf x (CTGas + DBGas) MMScf/month / 2000 lbs/ton) + sulfuric acid emissions from storage tank (determined using EPA Tanks 4.0.9 software).</p> <p>Where: CTGas = total MMScf of gas consumed by the combustion turbines (CT) during the month, including fuel consumed during start-up and shut down. DBGas = total MMScf of gas consumed by the duct burners (DB) during the month. Sulfuric Acid emission factor of 0.0006 lb/MMBtu. [N.J.A.C. 7:27-22.16(o)]</p>	<p>SO3 and H2SO4, as converted and expressed as H2SO4: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	<p>Methane \leq 153 tons/yr.</p> <p>Facility Wide Annual Methane emissions from the facility shall include Methane emitted by the two turbines and duct burners. This limit is based on steady state operation of each turbine, at ISO conditions, for the maximum permitted hr/yr and operation of each duct burner, for the maximum permitted hr/yr.</p> <p>Note: The Methane emissions from emergency diesel generator and fire water pump are below reporting thresholds of 0.05 lb/hr and therefore not included in this limit. . [N.J.A.C. 7:27-22.16(a)]</p>	<p>Methane: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
11	<p>HAPs (Total) \leq 4.99 tons/yr. Based on the sum of individual HAP emissions. [N.J.A.C. 7:27-22.16(a)]</p>	<p>HAPs (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
12	<p>Acrolein \leq 0.0582 tons/yr.</p> <p>Facility Wide Annual Acrolein emissions from the facility shall include Acrolien emitted by the two turbines and duct burners. . [N.J.A.C. 7:27-22.16(a)]</p>	<p>Acrolein: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	Benzene <= 0.233 tons/yr. Facility Wide Annual Benzene emissions from the facility shall include Benzene emitted by the two turbines and duct burners. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
14	Formaldehyde <= 2.15 tons/yr. Facility Wide Annual Formaldehyde emissions from the facility shall include Formaldehyde emitted by the two turbines and duct burners. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
15	Polycyclic organic matter <= 0.0425 tons/yr. Facility Wide Annual Polycyclic Organic Matter (POM) emissions from the facility shall include POM emitted by the two turbines and duct burners. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Polycyclic organic matter: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
16	Toluene <= 2.51 tons/yr. Facility Wide Annual Toluene emissions from the facility shall include Toluene emitted by the two turbines and duct burners. [N.J.A.C. 7:27-22.16(a)]	Toluene: Monitored by calculations each month during operation. The total facility wide annual emissions shall be equal to the annual emissions calculated at (U1, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Toluene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Subject Item: GR2 GHG

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	<p>Greenhouse gases as CO₂e <= 2,157.259 thousand tons/yr.</p> <p>Facility Wide Annual Greenhouse gas (GHG) emissions from the facility, based on the annual GHG emission from all combustion equipment in the permit: (2) turbines, (2) duct burners, (1) emergency generator and (1) emergency fire pump. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>Greenhouse gases as CO₂e: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceeding 11 months; monthly emissions shall be calculated as follows:</p> <p>Monthly Facility Wide CO₂e emissions = Monthly CO₂e emitted by the (2) turbines and duct burners + Monthly CO₂e emitted by the emergency diesel generator + Monthly CO₂e emitted by the fire water pump. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Greenhouse gases as CO₂e: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>Greenhouse gases as CO₂e ≤ 2,157.125 thousand tons/yr.</p> <p>Annual Greenhouse gas (GHG) emissions from two turbines and two duct burners (U1).</p> <p>Based on the following: Emission Factors: CO₂: (40 CFR 75, Equation G-4) Methane: (AP-42, table 3.1-2a) Nitrous Oxide: (AP-42, table 1.4-2)</p> <p>Global Warming Potentials: (40 CFR 98, table A-1)</p> <p>Heat Input values: Manufacturer's data.</p> <p>Maximum permitted hr/yr of natural gas combustion for each turbine and each duct burner [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>Greenhouse gases as CO₂e: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceeding 11 months; monthly emissions shall be calculated as follows:</p> $\text{CO}_2\text{e tons/month} = (119 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times (\text{CTGas} + \text{DBGas}) \text{ MMScf/month} / 2000 \text{ lbs/ton}) + (25 \times 0.0086 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times \text{CTGas} \text{ MMScf/month} / 2000 \text{ lbs/ton}) + (25 \times 0.00225 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times \text{DBGas} \text{ MMScf/month} / 2000 \text{ lbs/ton}) + (298 \times 0.003 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times \text{CTGas} \text{ MMScf/month} / 2000 \text{ lbs/ton}) + (298 \times 0.00216 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times \text{DBGas} \text{ MMScf/month} / 2000 \text{ lbs/ton})$ <p>Where: CTGas = total MMScf of gas consumed by the (2) combustion turbines (CT) during the month, including fuel consumed during start-up and shut down. DBGas = total MMScf of gas consumed by the (2) duct burners (DB) during the month, including fuel consumed during start-up and shut down. * See "Applicable Requirement" for Emission Factors and Global Warming Potentials. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Greenhouse gases as CO₂e: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The turbine net heat Rate at base load without Duct Burner shall be $\leq 7,522$ Btu/kWh (HHV) at ISO conditions, based on higher heating value of the fuel. [N.J.A.C. 7:27-22.16(a)] and [40 CFR 52.21]	Monitored by calculations once initially $\text{Btu/kW-hr} = X (\text{Scf/hr}) * Y (\text{Btu/Scf}) / Z (\text{kW})$ Where: X = Total MMScf of gas consumed during the hour. Y = Total British thermal units per Scf of gas, based on higher heating value of gas. Z = Total kiloWatts of power output to grid. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain calculations that demonstrate compliance and make accessible to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>CO2 <= 887 lb/MW-hr (gross output) for each combustion turbine and its associated duct burner. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>CO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>lb CO2/MWh for each combustion turbine / duct burner shall be determined as follows:</p> <p>(1) Determine total hourly CO2 mass emissions (lbs/hr) emitted by each turbine/duct burner during each operating hour of the month, using the following equation: $\text{CO2 lb/hr} = (119 \text{ lb/MMBtu} \times 1020 \text{ MMBtu/MMScf} \times (\text{CTGas} + \text{DBGas}) \text{ MMScf/hr}$ Where: CTGas = total MMScf of gas consumed by the combustion turbine (CT) during the hour, including fuel consumed during start-up (SU) and shut down (SD). DBGas = total MMScf of gas consumed by the duct burner (DB) during the hour, including fuel consumed during SU and SD. Natural Gas Emission Factor (lb/MMBtu): CO2 (40 CFR 75, Equation G-4) - CT and DB: 119</p> <p>(2) Determine total gross electric output from the turbine/duct burner, in terms of MWh, for each operating hour of the month.</p> <p>(3) Add the hourly CO2 mass emissions (lb/hr) for the entire month, and add the hourly gross output (MW) for the entire month.</p> <p>(4) Divide the total CO2 mass emissions calculated for the entire month (lb/hr) by the total hourly gross output calculated for the entire month (MW) to determine the total lb/MWhr for that month.</p> <p>(5) Add the CO2 lb/MWhr emission rate for that month to the sum of the CO2 lb/MWhr emission rate for the previous 11 calendar months and divide the total by 12 to determine the 12-month rolling average. [N.J.A.C. 7:27-22.16(o)]</p>	<p>CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>Greenhouse gases as CO₂e ≤ 117 tons/yr.</p> <p>Annual Greenhouse gas (GHG) emissions from one emergency generator (U4).</p> <p>Based on the following: Emission Factors: CO₂: (40 CFR 75, Equation G-4) Methane: (AP-42, table 3.1-4) Nitrous Oxide: (Climate Registry General Reporting Protocol (GRP) (Emission Factors by Fuel Type and Sector))</p> <p>Global Warming Potentials: (40 CFR 98, table A-1)</p> <p>Maximum permitted heat input</p> <p>Maximum permitted hr/yr of diesel fuel combustion, for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>Greenhouse gases as CO₂e: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>CO₂e tons/month = (162 lb/MMBtu x 139,000 MMBtu/MMGal x EG MMGal/month / 2000 lbs/ton) + (25 x 0.0081 lb/MMBtu x 139,000 MMBtu/MMGal x EG MMGal/month / 2000 lbs/ton) + (298 x 0.00132 lb/MMBtu x 139,000 MMBtu/MMGal x EG MMGal/month / 2000 lbs/ton)</p> <p>Where: EG = total gallons of ULSD consumed by the emergency generator (EG) during the month, including fuel consumed during startup and shut down. * See "Applicable Requirement" for Emission Factors and Global Warming Potentials. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Greenhouse gases as CO₂e: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<p>Greenhouse gases as CO₂e ≤ 16.8 tons/yr.</p> <p>Annual Greenhouse gas (GHG) emissions from one fire water pump engine (U3).</p> <p>Based on the following: Emission Factors: CO₂: (40 CFR 75, Equation G-4) Methane: (AP-42, table 3.1-4) Nitrous Oxide: (Climate Registry General Reporting Protocol (GRP) (Emission Factors by Fuel Type and Sector))</p> <p>Global Warming Potentials: (40 CFR 98, table A-1)</p> <p>Maximum permitted heat input</p> <p>Maximum permitted hr/yr of diesel fuel combustion, for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>Greenhouse gases as CO₂e: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> $\text{CO}_2\text{e tons/month} = (162 \text{ lb/MMBtu} \times 139,000 \text{ MMBtu/MMGal} \times \text{EG MMGal/month} / 2000 \text{ lbs/ton}) + (25 \times 0.0081 \text{ lb/MMBtu} \times 139,000 \text{ MMBtu/MMGal} \times \text{EG MMGal/month} / 2000 \text{ lbs/ton}) + (298 \times 0.00132 \text{ lb/MMBtu} \times 139,000 \text{ MMBtu/MMGal} \times \text{EG MMGal/month} / 2000 \text{ lbs/ton})$ <p>Where: EG = total gallons of ULSD consumed by the emergency generator (EG) during the month, including fuel consumed during startup and shut down. * See "Applicable Requirement" for Emission Factors and Global Warming Potentials. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Greenhouse gases as CO₂e: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: GR10 RGGI Rule (For CC Turbines in U1)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	<p>The owners and operators of each CO2 budget source and each CO2 budget unit at the source shall, as of the CO2 allowance transfer deadline, hold CO2 allowances in the sources's compliance account, available for compliance deductions under N.J.A.C. 7:27C-6.9, as follows:</p> <p>1) In the case of an initial control period, the number of CO2 allowances held shall be no less than the amount equivalent to the total CO2 emissions for the initial control period from all CO2 budget units at the source;</p> <p>2) In the case of a control period, the number of CO2 allowances held shall be no less than the total CO2 emissions for the control period from all CO2 budget units at the source, less the CO2 allowances deducted to meet the requirements of N.J.A.C 7:27C-1.4(g) with respect to the previous two interim control periods, as determined in accordance with N.J.A.C 7:27C-6 and 7:27C-8;</p> <p>3) In the case of an interim control period, the number of CO2 allowances held shall be no less than the total CO2 emissions for the interim control period from all CO2 budget units at the source, multiplied by 0.50, as determined in accordance with NJAC 7:27C-6 and 7:27C-8. [N.J.A.C. 7:27C-1.4(f)]</p>	<p>Monitored by calculations at the approved frequency. The Department shall use the emission measurements recorded and reported in accordance with N.J.A.C. 7:27C-8 to determine the unit's compliance. Total tons for a control period shall be calculated as the sum of all recorded hourly emissions (or the tonnage equivalent of the recorded hourly emissions rates) in accordance with N.J.A.C. 7:27C-8. The Department will round total CO2 emissions to the nearest whole ton, so that any fraction of a ton equal to or greater than 0.50 tons is deemed to equal one ton and any fraction of a ton less than 0.50 tons is deemed to equal zero tons. [N.J.A.C. 7:27C- 1.4(d)]</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Maintain records of all CO2 emissions from each CO2 budget unit. [N.J.A.C. 7:27C- 8]</p>	<p>Submit a report: On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). The CO2 authorized account representative shall submit quarterly reports to the Bureau of Energy and Sustainability, for each calendar quarter beginning with:</p> <p>i. For a unit that commences commercial operation before December 17, 2018, the calendar quarter beginning January 1, 2020; or</p> <p>ii. For a unit commencing commercial operation on or after December 17, 2018, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under N.J.A.C. 7:27C-8.1(d). If the calendar quarter so determined is the third or fourth quarter of 2019, reporting shall commence in the quarter beginning January 1, 2020.</p> <p>Quarterly reports shall be submitted in the manner specified in Subpart H of 40 CFR 75 and 40 CFR 75.64. Quarterly reports shall be submitted for each CO2 budget unit (or group of units using a common stack), and shall include all of the data and information required in Subpart G of 40 CFR 75, except for opacity, heat input, NOx and SO2 provisions.</p> <p>The CO2 authorized account representative shall submit, to the Bureau of Energy and Sustainability, a compliance certification in support of each quarterly report, pursuant to N.J.A.C. 7:27C-8.5(c)3. [N.J.A.C. 7:27- 8.5(c)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>CO2 Allowance Tracking System (COATS): CO2 allowances shall be held in, deducted from, or transferred among COATS accounts in accordance with N.J.A.C 7:27C-5, 6, and 7. [N.J.A.C 7:27C-1.4(i)] A CO2 allowance shall not be deducted, in order to comply with N.J.A.C. 7:27-1.4(f), for a control period that ends prior to the year for which the CO2 allowance was allocated. [N.J.A.C 7:27C-1.4(j)] A CO2 offset allowance shall not be deducted, in order to comply with N.J.A.C. 7:27-1.4(f), beyond the applicable percent limitations at N.J.A.C. 7:27C6.9(a)3. [N.J.A.C. 7:27C- 1.4(k)]</p>	<p>Other: The Permittee shall review any transactions recorded in its COATS account for accuracy.[N.J.A.C. 7:27-22.16(o)].</p>	<p>None.</p>	<p>Submit a report: As per the approved schedule Submit compliance certification reports pursuant to N.J.A.C 7:27C-4.1(a) and CO2 allowance transfer requests, as necessary, pursuant to N.J.A.C 7:27C-7.1(a), to the Bureau of Energy and Sustainability</p> <p>If information in COATS account is found to be inaccurate, notify the Bureau of Energy and Sustainability. [N.J.A.C. 7:27-22.16(o)]</p>
3	<p>CO2: The owners and operators of a CO2 budget source that has excess emissions in any control period or in the initial control period, or has excess interim emissions in any interim control period, shall:</p> <ol style="list-style-type: none"> 1. Forfeit the CO2 allowances required for deduction under N.J.A.C. 7:27C-6.9(e); 2. Not use any CO2 offset allowances to cover any part of such excess emissions; and 3. Pay any fine, penalty, or assessment or comply with any other remedy imposed under N.J.A.C. 7:27C-6.9(f). [N.J.A.C. 7:27C- 1.4(n)] 	<p>Other: The Permittee shall review any transactions recorded in its COATS account for accuracy.[N.J.A.C. 7:27-22.16(o)].</p>	<p>None.</p>	<p>Submit notification: Upon occurrence of event. If information in COATS account is found to be inaccurate, notify the Bureau of Energy and Sustainability. [N.J.A.C. 7:27-22.16(o)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	CO2: Account certificate of representation and supporting documents. [N.J.A.C. 7:27C-1.4(o)1]	None.	CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owners and operators of the CO2 budget source and each CO2 budget unit at the source shall keep on site at the source the account certificate of representation for the CO2 authorized account representative for the CO2 budget source and each CO2 budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with N.J.A.C. 7:27C-2.4. These documents shall be retained on site at the source until such documents are superseded by a newly submitted account certificate of representation changing the CO2 authorized account representative. [N.J.A.C. 7:27C- 1.4(o)1]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	CO2: Copies of Documents & Reports [N.J.A.C. 7:27C- 1.4(o)]	None.	<p>CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event The owners and operators of the CO2 budget source and each CO2 budget unit at the source shall keep on site at the source each of the following documents for a period of 10 years from the date the document is created. The Department may at any time prior to the end of the 10-year period extend the 10-year period in writing, if it determines that retention of the documents beyond the 10-year period is necessary to determine compliance with the requirements of N.J.A.C. 7:27C:</p> <ul style="list-style-type: none"> - All emissions monitoring information, in accordance with N.J.A.C. 7:27C-8 and 40 CFR 75.57; - Copies of all reports, compliance certifications, and other submissions, and all records made or required under the CO2 Budget Trading Program; and - Copies of all documents used to complete an application for a new or modified operating permit that incorporates the requirements of the CO2 Budget Trading Program and any other submission under the CO2 Budget Trading Program or to demonstrate compliance with the requirements of the CO2 Budget Trading Program. <p>[N.J.A.C 7:27C-1.4(o)2, [N.J.A.C 7:27C-1.4(o)3 and. [N.J.A.C. 7:27C-1.4(o)4]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	CO2: Compliance Certification Report: [N.J.A.C. 7:27C-1.4(p)] and [N.J.A.C. 7:27C- 4.1]	None.	None.	<p>Submit a report: As per the approved schedule. For each control period, including the initial control period, in which a CO2 budget source is subject to the CO2 requirements of N.J.A.C 7:27C-1.4, the CO2 authorized account representative shall submit, to the Bureau of Energy and Sustainability, by March 1 following each relevant three-calendar-year control period, the compliance certification report that includes the following elements listed in N.J.A.C. 7:27C-4.1(b):</p> <ol style="list-style-type: none"> 1. Identification of the CO2 budget source and each CO2 budget unit at the source; 2. At the CO2 authorized account representative's option, the serial numbers of the CO2 allowances that are to be deducted from the CO2 budget source's compliance account under N.J.A.C. 7:27C-6.9 for the control period, including the serial numbers of any CO2 offset allowances that are to be deducted subject to the limitations of N.J.A.C. 7:27C-6.9(a)3; and 3. The compliance certification: <p>In the compliance certification report, the CO2 authorized account representative shall certify whether the CO2 budget source and each CO2 budget unit at the source for which the compliance certification is submitted was operated, during the calendar years covered by the report, in compliance with the requirements of the CO2 Budget Trading Program, based on reasonable inquiry of those persons with primary responsibility for operating the CO2 budget source and the CO2 budget units at the source in compliance with the CO2 Budget Trading Program. [N.J.A.C. 7:27C-4.1(b)] and. [N.J.A.C. 7:27C- 4.1]</p>

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	<p>CO2: The owner or operator of each CO2 budget unit shall install all monitoring systems necessary to monitor CO2 mass emissions in accordance with 40 CFR Part 75, except for equation G-1 of Appendix G, which shall not be used to determine CO2 emissions. Compliance with this paragraph may require systems to monitor CO2 concentration, stack gas flow rate, O2 concentration, heat input, and fuel flow rate [N.J.A.C. 7:27C- 8.1(c)1]</p>	<p>Other: The owner or operator of a CO2 budget unit shall meet the monitoring system certification and other requirements of N.J.A.C. 7:27C-8.1(c) and shall quality-assure the data from the monitoring systems in accordance with the schedule prescribed in N.J.A.C. 7:27C-8.1(d)(1) for a CO2 budget unit that commenced commercial operation before December 17, 2018, N.J.A.C. 7:27C-8.1(d)(2) for a CO2 budget unit that commenced commercial operation on or after December 17, 2018 or N.J.A.C. 7:27C-8.1(d)(3) for a CO2 budget unit for which construction of a new stack or flue installation is completed after the applicable deadlines at N.J.A.C. 7:27C-8.1(d)(1) and (2). [N.J.A.C 7:27C-8.1(c)2], [N.J.A.C 7:27C-8.1(c)3] and [N.J.A.C 7:27C-8.1(d)]</p> <p>The owner or operator shall ensure, for each continuous emissions monitoring system (including the automated data acquisition and handling system) the successful completion of all of the initial certification testing required under 40 CFR 75.20 by the applicable deadlines listed above. In addition, whenever the owner or operator installs a monitoring system in order to meet the requirements of N.J.A.C. 7:27C-8 in a location where no such monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required.[N.J.A.C. 7:27C- 8.2(d)].</p>	<p>CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator of a CO2 budget unit shall record the data from the monitoring systems in accordance with the schedule prescribed in N.J.A.C. 7:27C-8.1(d)(1) for a CO2 budget unit that commenced commercial operation before December 17, 2018, N.J.A.C. 7:27C-8.1(d)(2) for a CO2 budget unit that commenced commercial operation on or after December 17, 2018 or N.J.A.C. 7:27C-8.1(d)(3) for a CO2 budget unit for which construction of a new stack or flue installation is completed after the applicable deadlines at N.J.A.C. 7:27C-8.1(d)(1) and (2). [N.J.A.C 7:27C-8.1(c)3] and. [N.J.A.C. 7:27C-8.1(d)]</p>	<p>Submit a report: As per the approved schedule. The owner or operator of a CO2 budget unit shall report the data from the monitoring systems in accordance with the schedule prescribed in N.J.A.C. 7:27C-8.1(d)(1) for a CO2 budget unit that commenced commercial operation before December 17, 2018, N.J.A.C. 7:27C-8.1(d)(2) for a CO2 budget unit that commenced commercial operation on or after December 17, 2018 or N.J.A.C. 7:27C-8.1(d)(3) for a CO2 budget unit for which construction of a new stack or flue installation is completed after the applicable deadlines at N.J.A.C. 7:27C-8.1(d)(1) and (2). [N.J.A.C 7:27C-8.1(c)3] and. [N.J.A.C. 7:27C- 8.1(d)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	<p>CO2: The owner or operator of a CO2 budget unit that commenced commercial operation before December 17, 2018 and did not certify all monitoring systems required under N.J.A.C. 7:27C8.1(c) by June 11, 2019; or a CO2 budget unit that commenced commercial operation on or after December 17, 2018 and did not certify all monitoring systems required under N.J.A.C. 7:27C8.1(c) by June 11, 2019 or the earlier of 90 unit operating days or 180 calendar days after the date on which the unit commenced commercial operation; or a CO2 budget unit for which construction of a new stack or flue installation is completed after the above deadline and did not certify all monitoring systems required under N.J.A.C. 7:27C8.1(c) by the earlier of 90 unit operating days or 180 calendar days after the date on which emissions first exited the new stack or flue and entered the atmosphere; shall, for each such monitoring system, determine, record and report, the necessary data as specified. [N.J.A.C. 7:27C- 8.1(e)]</p>	<p>Other: The owner or operator shall, for each monitoring system, determine maximum (or, as appropriate, minimum) potential values for CO2 concentration, CO2 emissions rate, stack gas moisture content, fuel flow rate, heat input, and any other parameter required to determine CO2 mass emissions in accordance with 40 CFR 75.31(b)(2) or (c)(3) and section 2.4 of Appendix D of 40 CFR Part 75, as applicable.[N.J.A.C. 7:27C- 8.1(e)].</p>	<p>CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator shall, for each monitoring system, record maximum (or, as appropriate, minimum) potential values for CO2 concentration, CO2 emissions rate, stack gas moisture content, fuel flow rate, heat input, and any other parameter required to determine CO2 mass emissions in accordance with 40 CFR 75.31(b)(2) or (c)(3) and section 2.4 of Appendix D of 40 CFR Part 75, as applicable. [N.J.A.C. 7:27C- 8.1(e)]</p>	<p>Submit a report: As per the approved schedule. The owner or operator shall, for each monitoring system, report maximum (or, as appropriate, minimum) potential values for CO2 concentration, CO2 emissions rate, stack gas moisture content, fuel flow rate, heat input, and any other parameter required to determine CO2 mass emissions in accordance with 40 CFR 75.31(b)(2) or (c)(3) and section 2.4 of Appendix D of 40 CFR Part 75, as applicable. [N.J.A.C. 7:27C-8.1(e)]</p>
9	<p>No owner or operator of a CO2 budget unit shall use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval in accordance with N.J.A.C. 7:27C-8.6. [N.J.A.C. 7:27C-8.1(j)1]</p>	<p>None.</p>	<p>None.</p>	<p>Obtain approval: Upon occurrence of event. The CO2 authorized account representative of a CO2 budget unit may submit a petition to the Administrator under 40 CFR 75.66, and to the Department requesting approval to apply an alternative to any requirement of 40 CFR Part 75 or to a requirement concerning any additional CEMS required under the common stack provisions of 40 CFR 75.72 or a CO2 concentration CEMS used under 40 CFR 75.71(a)(2). [N.J.A.C. 7:27C-8.6]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	<p>CO2: The owner or operator of a CO2 budget unit shall comply with the initial certification and recertification procedures set forth at N.J.A.C. 7:27C-8.2(d) through (r) for a continuous emissions monitoring system and an excepted monitoring system under Appendix D of 40 CFR Part 75, except as provided in N.J.A.C. 7:27C-8.2(a). The owner or operator of a CO2 budget unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR 75.19 or that qualifies to use an alternative monitoring system under Subpart E of 40 CFR Part 75 shall comply with the initial certification and recertification procedures set forth at N.J.A.C. 7:27C-8.2(q) or (r), respectively. [N.J.A.C. 7:27C- 8.2(c)]</p>	None.	None.	<p>Submit notification: Upon occurrence of event. The CO2 authorized account representative shall submit to the Department, EPA Region 2 office and the Administrator a written notice of the dates of certification in accordance with N.J.A.C. 7:27C-8.4. [N.J.A.C. 7:27C-8.2(h)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	<p>CO2: . The owner or operator shall recertify a monitoring system in accordance in 40 CFR 75.20(b) whenever the owner or operator makes the replacement, modification, or changes described in N.J.A.C. 7:27C-8.2(f). [N.J.A.C. 7:27C-8.2(f)]</p> <p>A provisionally certified monitor may be used under the CO2 Budget Trading Program for a period not to exceed 120 days after the Department receives the complete certification application for the monitoring system, or component thereof, under N.J.A.C.7:27C-8.2(h). [N.J.A.C. 7:27C-8.2(j)]</p> <p>Whenever any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in Subpart D or Appendix C, of 40 CFR Part 75. [N.J.A.C. 7:27C- 8.3(a)]</p>	<p>Other: The owner or operator of a CO2 budget unit shall submit a monitoring plan in the manner prescribed in 40 CFR 75.62, either electronically or hardcopy. If electronic, no later than 21 days prior to the initial certification tests; at the time of each certification or recertification application submission; and (prior to or concurrent with) the submittal of the electronic quarterly report for a reporting quarter where an update of the electronic monitoring plan information is required. If hardcopy, no later than 21 days prior to the initial certification test; with any certification or recertification application, if a hardcopy monitoring plan change is associated with the certification or recertification event; and within 30 days of any other event with which a hardcopy monitoring plan change is associated, pursuant to 40 CFR 75.53(b). Electronic submittal of all monitoring plan information, including hardcopy portions, is permissible provided that a paper copy of the hardcopy portions can be furnished upon request.[N.J.A.C. 7:27C- 8.5(b)].</p>	None.	<p>Submit documentation of compliance: As per the approved schedule. The CO2 authorized account representative shall submit a certification or recertification application to the Department for each monitoring system within 45 days after completing all CO2 monitoring system initial certification or recertification tests required under N.J.A.C. 7:27C-8.2 including the information required under 40 CFR 75.53(g) and (h) and 75.63. . [N.J.A.C. 7:27C- 8.2(e)]</p>
12	<p>The CO2 authorized account representative of a CO2 budget unit that co-fires eligible biomass as a compliance mechanism under N.J.A.C. 7:27C shall report the information as provided in N.J.A.C. 7:27C-8.7 to the Department for each calendar quarter. [N.J.A.C. 7:27C- 8.7(a)]</p>	None.	None.	<p>Submit a report: Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). [N.J.A.C. 7:27C-8.7]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	Net electric output and net thermal output. [N.J.A.C. 7:27C- 8.8(a)]	Other: The output monitoring plan shall include: - a diagram of the electrical and/or steam system, - a description of each output monitoring system, - a detailed description of all quality assurance and quality control activities, and - documentation supporting any output value(s) to be used as a missing data value should there be periods of invalid output data. [N.J.A.C. 7:27C-8.8(g)] Ongoing quality assurance and quality control (QA/QC) activities shall be performed in order to maintain the output system in accordance with N.J.A.C. 7:27C-8.8(i).[N.J.A.C. 7:27C- 8.8].	Other: The owner or operator of a CO2 budget source shall retain data used to monitor, determine, or calculate net electrical output and net thermal output for 10 years.[N.J.A.C. 7:27C-8.8(j)].	Submit a report: Annually. The CO2 authorized account representative shall submit annual output reports electronically to the Department, pursuant to N.J.A.C. 7:27C-8.8(b) through (j), by the March 1 following the immediately preceding calendar year. These reports shall also be submitted, upon Department request, in hardcopy. The annual output report shall include unit level megawatt-hours and all useful steam output; and shall include a certification from the CO2 authorized account representative pursuant to N.J.A.C. 7:27C-8.8(k). [N.J.A.C. 7:27C-8.8(a)] and. [N.J.A.C. 7:27C- 8.8(k)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG

Subject Item: CD101 Selective Catalytic Reduction for Turbine 1, CD201 Selective Catalytic Reduction for Turbine 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The Selective Catalytic Reduction system shall be used to reduce Nitrogen Oxides (NOx) resulting from combustion in the turbine, at the recommended manufacturer's operating flue gas flowrate range, such that NOx (Total) emissions as established for the turbines in this permit are met. The minimum NOx control efficiency shall be 90% (design value). [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by documentation of construction.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall maintain SCR system manufacturer's documentation, as built performance guarantee, specifications, operation and maintenance manual on-site.[N.J.A.C. 7:27-22.16(o)].	None.
2	The SCR shall be operated and reagent shall be injected at all times that the turbine is operating, except during periods of start-up and shutdown, as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously. The permittee shall continuously monitor the time and duration of any operation of the combustion turbine and the SCR system. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The permittee shall continuously record the time and duration of any operation of the combustion turbine and the SCR system. [N.J.A.C. 7:27-22.16(o)]	None.
3	Temperature upstream of SCR \geq 400 degrees Fahrenheit, except during startups or shutdowns, as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	Monitored by temperature instrument continuously, based on a 1 hour block average. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	The SCR catalyst shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer, based on NOx emission levels indicated through CEM/stack testing. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by documentation of maintenance and catalyst replacement upon occurrence of event.[N.J.A.C. 7:27-22.16(o)].	Other: Record keeping by manual logging of parameter or storing data in computer system. The permittee shall maintain the catalyst maintenance and replacement records on-site.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG

Subject Item: CD102 CO Oxidation Catalyst for Turbine 1, CD202 CO Oxidation Catalyst for Turbine 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	<p>The Catalytic Oxidizers shall be used to destroy carbon monoxide (CO) and volatile organic compounds (VOC) resulting from the combustion of fuel in the turbine at the recommended manufacturer's operating flue gas flowrate range such that CO and VOC (total) emission limits, as established in this permit, are met.</p> <p>The minimum CO destruction efficiency shall be 90% (design value) except during startup or shutdown, as defined in this permit. [N.J.A.C. 7:27-22.16(a)]</p>	Other: Monitored by document of construction.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall maintain Catalytic Oxidizer system manufacturer's documentation, as built performance guarantee, specifications, and operation & maintenance manual (O&M) on-site.[N.J.A.C. 7:27-22.16(o)].	None.
2	The Catalytic Oxidizers shall be in place at all times that the turbine is operating except during start-up and shutdown, as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	Other: Ensure that the Catalytic Oxidizer (catalyst) is in place at all times.[N.J.A.C. 7:27-22.16(o)].	None.	None.
3	Temperature at Exit of Catalyst \geq 350 and Temperature at Exit of Catalyst \leq 800 degrees F , except during periods of turbine startup/shutdown, as defined in this permit. Applicable to the Catalytic Oxidizers. [N.J.A.C. 7:27-22.16(a)]	<p>Temperature at Exit of Catalyst: Monitored by temperature instrument continuously, based on a 1 hour block average.</p> <p>The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]</p>	Temperature at Exit of Catalyst: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	The Catalytic Oxidizer array(s) shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer, based on usage rate and CO emission levels, indicated through CEMS / Stack Testing. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by documentation of maintenance and catalyst replacement upon occurrence of event.[N.J.A.C. 7:27-22.16(o)].	Other: Record keeping by manual logging of parameter or storing data in computer system. The permittee shall maintain the catalyst maintenance and replacement records on-site.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 52 PSD 40 CFR 60 Subpart A (Turbines) 40 CFR 60 Subpart KKKK (Turbines) 40 CFR 72 - Phase II Acid Rain 40 CFR 97 - CSAPR [None]	None.	None.	None.

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>RENEWAL STACK TESTING SUMMARY:</p> <p>The permittee shall conduct a stack test at least 18 months prior to the expiration of the initial or renewed operating permit using an approved protocol to demonstrate compliance with emission limits for NOx, CO, VOC, SO2, TSP, PM-10 and PM-2.5 as specified in the compliance plan for OS1, OS2, OS3 and OS4. The permittee shall provide EMS with the turbine load performance curve with the protocol. The duct burner shall be in operation during stack testing of OS3 and OS4.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.</p> <p>The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NOx and/or CO, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above.</p> <p>[N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s).</p> <p>In accordance with N.J.A.C 7:27-19.15(a)2, any NOx testing conducted pursuant to this section shall be conducted concurrently with CO testing. The applicable NOx emission limits in N.J.A.C 7:27-19 will not be considered to have been met unless the concurrent CO testing demonstrates compliance with the CO limit in N.J.A.C 7:27-16.9 or any other permit limit for CO, whichever is more stringent, is also met.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert.</p> <p>Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>CONTINUOUS EMISSION MONITORING: (NO_x, CO)</p> <p>Install and operate Continuous Emission Monitoring System (CEMS) and conduct Performance Specification Test (PST) in accordance with the NJDEP Technical Manual 1005, to demonstrate compliance with emission limits for NO_x and CO as specified in the compliance plan for OS Summary, OS1, OS2, OS3, OS4, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>CEMS/COMS - Submit equipment protocol, submit a PST protocol, conduct PST and submit results: As per the approved schedule . [N.J.A.C. 7:27-22.18(g)]</p>
4	<p>The Permittee shall request approval from the Department's Emission Measurement Section (EMS) to allow continued use of the existing CEMS when a change to the units of measurement is made to a permit limit. [N.J.A.C. 7:27-22.16(a)]</p>	<p>None.</p>	<p>Other: Maintain readily accessible records of the Permittee's written request to EMS, and the response from EMS . [N.J.A.C. 7:27-22.16(o)].</p>	<p>Comply with the requirement: Upon occurrence of event submit a written request to the EMS within 30 days from the date of the approved operating permit to determine whether a full CEMS recertification is required, whether the change can follow the procedures for data recording and storage equipment upgrades found in the Department's Technical Manual 1005 Section IV.B.3(f), or if continued use of the existing CEMS is allowed. [N.J.A.C. 7:27-22]</p>
5	<p>The owner or operator shall develop a QA/QC plan for each CEMS/COMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQPP webpage at http://www.state.nj.us/dep/aqpp. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Maintain readily accessible records of the QA/QC plan including QA data and quarterly reports. [N.J.A.C. 7:27-22.16(o)].</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<p>CONTINUOUS PROCESS MONITORING: (Ammonia)</p> <p>Install and Operate Continuous Ammonia Monitoring System, in accordance with the NJDEP Technical Manual 1005, to demonstrate compliance with emission limits for Ammonia as specified in the compliance plan for OS Summary, OS1, OS2, OS3 and OS4. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(0)].</p>	<p>Submit an equipment protocol: As per the approved schedule.</p> <p>The Permittee shall submit an equipment protocol to the Department in accordance with the NJDEP Technical Manual 1005 for review and approval. [N.J.A.C. 7:27-22.16(o)]</p>
7	<p>Turbines: The owner or operator of a stationary combustion turbine that has a maximum gross heat input rate of 25 million BTU per hour or more and associated duct burner (if a duct burner is installed) shall ensure that the combustion process is adjusted in accordance with the manufacturer's recommended procedures and maintenance schedules for those sources.</p> <p>[N.J.A.C 7:27-22.16(g)], [N.J.A.C. 7:27-19.16(g)], [N.J.A.C. 7:27-16.9(f)] and [N.J.A.C. 7:27-19.5(e)]</p>	<p>Other: Monitored by continuous emission monitoring (CEMS) or by periodic emission monitoring upon performing combustion adjustment. If not using a certified CEMS, monitoring shall be performed in accordance with the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005.</p> <p>[N.J.A.C. 7:27-19.16(g)].</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage upon performing combustion adjustment or by manual logging of parameter or storing data in a computer data system. The permittee shall record the following information for each adjustment in a log book or computer data system:</p> <ol style="list-style-type: none"> 1. The date and times the adjustment began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NOx, CO, and O2 measured before and after the adjustment was made; and 5. The type and amount of fuel use over the 12 months prior to the adjustment. <p>The records shall be kept for a minimum of 5 years and be readily accessible to the Department upon request.</p> <p>[N.J.A.C. 7:27-19.16(h)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Turbines: An exceedance of an emission limit that occurs during an adjustment of the combustion process under N.J.A.C. 7:27-19.16(g) is not a violation of this subchapter if it occurs as a result of the adjustment. After the combustion adjustment has been completed, the maximum emission rate of any contaminant shall not exceed the maximum allowable emission rate applicable under this subchapter or under an operating permit issued pursuant to N.J.A.C. 7:27-22 or an applicable certificate issued pursuant to N.J.A.C. 7:27-8. [N.J.A.C. 7:27-19.16(f)]	None.	None.	None.
9	Sulfur Content in Fuel \leq 0.0042 gr/dscf in natural gas. [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. gas) each month during operation, based on a consecutive 12 month period (rolling 1 month basis). Fuel sampling and analysis may be done either by the permittee or by the natural gas supplier. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results each month during operation. Maintain monthly certified lab analysis results and make them accessible to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
10	Natural Gas Usage \leq 39,411 MMft ³ per 365 consecutive day period, rolling one day basis. This fuel limit applies to the combined operation of (2) combustion turbines and (2) duct burners. Based on operation, at maximum permitted heat input, of each turbine and each duct burner for the maximum permitted hr/yr. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Hours of Operation While Firing Natural Gas <= 8,500 hr/yr (for each turbine). [N.J.A.C. 7:27-22.16(a)]	Hours of Operation While Firing Natural Gas: Monitored by hour/time monitor continuously, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Natural Gas: Recordkeeping by manual logging of parameter or storing data in a computer data system daily. [N.J.A.C. 7:27-22.16(o)]	None.
12	Hours of Operation While Firing Natural Gas <= 1,800 hr/yr (for each duct burner). [N.J.A.C. 7:27-22.16(a)]	Hours of Operation While Firing Natural Gas: Monitored by hour/time monitor continuously, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Natural Gas: Recordkeeping by manual logging of parameter or storing data in a computer data system daily. [N.J.A.C. 7:27-22.16(o)]	None.
13	The permittee shall operate and maintain Dry Low NOx Burners, as per manufacturer's requirements, at all times, including periods of start-up and shut down, as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	Other: Ensure that the Dry Low NOx Burner is operated and maintained in accordance with the manufacturer's requirements at all times.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall record all maintenance performed on the Dry Low NOx Burner. Records shall include: 1. The date and time that the maintenance was performed. 2. The name, title and affiliation of the person who performed the maintenance. 3. The type of procedure and maintenance performed. The permittee shall maintain Dry Low NOx Burner manufacturer's specifications, and operation and maintenance manual (OM&M) on-site. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	<p>NO_x (Total) <= 137 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. N.J.A.C. 7:27-22.16(a), [N.J.A.C. 7-27-18.2(a)] and. [40 CFR 52.21]</p>	<p>NO_x (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>NO_x tons/month = [(Total NO_x emitted during the month by two combustion turbines / duct burners operating simultaneously (tons / month) measured by CEMs system)] + [(Total NO_x emitted during the month by two combustion turbines operating without duct burner (tons / month) measured by CEMs system)]. [N.J.A.C. 7:27-22.16(o)]</p>	<p>NO_x (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
15	<p>CO <= 481 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Co tons/month = [(Total CO emitted during the month by two combustion turbines / duct burners operating simultaneously (tons / month) measured by CEMs system)] + [(Total CO emitted during the month by two combustion turbines operating without duct burner (tons / month) measured by CEMs system)]. [N.J.A.C. 7:27-22.16(o)]</p>	<p>CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	<p>VOC (Total) <= 34.6 tons/yr. This limit includes Formaldehyde emissions.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.2(a)]</p>	<p>VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated, for each turbine/duct burner separately, as follows:</p> $\text{VOC tons/month} = \{ \{ (1020 \text{ MMBtu/MMscf}) \times [(X1 \text{ lbs/MMBtu} \times Y1 \text{ MMscf/month}) + (X2 \text{ lbs/MMBtu} \times Y2 \text{ MMscf/month})] \} + [(42.4 \text{ lb/hr} \times ZC \text{ hr/month}) + (25.3 \text{ lb/hr} \times ZW \text{ hr/month}) + (27.1 \text{ lb/hr} \times ZH \text{ hr/month}) + (14 \text{ lb/hr} \times ZSD \text{ hr/month})] \} / 2000 \text{ lbs/ton}$ <p>(See Recordkeeping Requirement for definition of variables). [N.J.A.C. 7:27-22.16(o)]</p>	<p>VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions.</p> <p>Definition of variables in VOC compliance equation (see Monitoring Requirement) X1 = the average lb/MMBtu emission rate, for each turbine with duct burner on, determined by the most recent stack test X2 = the average lb/MMBtu emission rate, for each turbine with duct burner off, determined by the most recent stack test (X1 and X2 shall be the average of all valid stack test runs) Y1 = the monthly MMscf of gas consumed by the turbine with duct burner on Y2 = the monthly MMscf of gas consumed by the turbine with duct burner off (Y1 and Y2 shall not include fuel consumption during start-up and shut down) ZC = the total hours, during the month, that the turbine operated in cold start-up mode ZW = the total hours, during the month, that the turbine operated in warm start-up mode ZH = the total hours, during the month, that the turbine operated in hot start-up mode ZSD = the total hours, during the month, that the turbine operated in shut down mode (All variables shall be determined separately for each piece of equipment) . [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	<p>SO2 <= 19.7 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners.</p> <p>*Based on the maximum rolling 12 month average value of sulfur content in Transco's natural gas measured during 2010 - 2011 monthly samples (0.3775 grains/100dscf). [N.J.A.C. 7:27-22.16(a)]</p>	<p>SO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated, for each turbine/duct burner separately, as follows:</p> $\text{SO2 tons/month} = [(X1 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y1 \text{ MMscf}) + (X2 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y2 \text{ MMscf})] / 2000 \text{ lbs/ton}$ <p>Where: X1 = the lb/MMBtu emission rate, for each turbine with duct burner on, based on the most recent monthly natural gas sulfur test X2 = the lb/MMBtu emission rate, for each turbine with duct burner off, based on the most recent monthly natural gas sulfur test Y1 = the monthly MMscf of gas consumed by the turbine with duct burner on Y2 = the monthly MMscf of gas consumed by the turbine with duct burner off (Y1 and Y2 shall include fuel consumption during start-up and shut down) (X1, X2, Y1 and Y2 shall be determined for each turbine separately). [N.J.A.C. 7:27-22.16(o)]</p>	<p>SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
18	<p>TSP <= 57.3 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated, for each turbine/duct burner separately, as follows:</p> $\text{TSP tons/month} = [(X1 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y1 \text{ MMscf}) + (X2 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y2 \text{ MMscf})] / 2000 \text{ lbs/ton}$ <p>Where: X1 = the average lb/MMBtu emission rate, for each turbine with duct burner on, determined by the most recent stack test X2 = the average lb/MMBtu emission rate, for each turbine with duct burner off, determined by the most recent stack test (X1 and X2 shall be the average of all valid stack test runs) Y1 = the monthly MMscf of gas consumed by the turbine with duct burner on Y2 = the monthly MMscf of gas consumed by the turbine with duct burner off (Y1 and Y2 shall include fuel consumption during start-up and shut down) (X1, X2, Y1 and Y2 shall be determined for each turbine separately). [N.J.A.C. 7:27-22.16(o)]</p>	<p>TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	<p>PM-10 (Total) <= 95.4 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)] and [40 CFR 52.21]</p>	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated, for each turbine/duct burner separately, as follows:</p> $\text{PM-10 tons/month} = \left[\left(X1 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y1 \text{ MMscf} \right) + \left(X2 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y2 \text{ MMscf} \right) \right] / 2000 \text{ lbs/ton}$ <p>Where: X1 = the average lb/MMBtu emission rate, for each turbine with duct burner on, determined by the most recent stack test X2 = the average lb/MMBtu emission rate, for each turbine with duct burner off, determined by the most recent stack test (X1 and X2 shall be the average of all valid stack test runs) Y1 = the monthly MMscf of gas consumed by the turbine with duct burner on Y2 = the monthly MMscf of gas consumed by the turbine with duct burner off (Y1 and Y2 shall include fuel consumption during start-up and shut down) (X1, X2, Y1 and Y2 shall be determined for each turbine separately). [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	<p>PM-2.5 (Total) <= 95.4 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated, for each turbine/duct burner separately, as follows:</p> $\text{PM-2.5 tons/month} = [(X1 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y1 \text{ MMscf}) + (X2 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y2 \text{ MMscf})] / 2000 \text{ lbs/ton}$ <p>Where: X1 = the average lb/MMBtu emission rate, for each turbine with duct burner on, determined by the most recent stack test X2 = the average lb/MMBtu emission rate, for each turbine with duct burner off, determined by the most recent stack test (X1 and X2 shall be the average of all valid stack test runs) Y1 = the monthly MMscf of gas consumed by the turbine with duct burner on Y2 = the monthly MMscf of gas consumed by the turbine with duct burner off (Y1 and Y2 shall include fuel consumption during start-up and shut down) (X1, X2, Y1 and Y2 shall be determined for each turbine separately). [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	<p>Ammonia <= 119 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Ammonia: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Ammonia tons/month = [(Total Ammonia emitted during the month by two combustion turbines / duct burners operating simultaneously (tons / month) measured by continuous process monitoring system)] + [(Total Ammonia emitted during the month by two combustion turbines operating without duct burner (tons / month) measured by continuous process monitoring system)]. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	<p>SO3 and H2SO4, as converted and expressed as H2SO4 <= 10.5 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Sulfuric Acid tons/month = (0.0006 lb/MMBtu x 1020 MMBtu/MMScf x (CTGas + DBGas) MMScf/month / 2000 lbs/ton)</p> <p>Where: CTGas = total MMScf of gas consumed by the combustion turbines (CT) during the month, including fuel consumed during start-up and shut down. DBGas = total MMScf of gas consumed by the duct burners (DB) during the month. Sulfuric Acid emission factor of 0.0006 lb/MMBtu. [N.J.A.C. 7:27-22.16(o)]</p>	<p>SO3 and H2SO4, as converted and expressed as H2SO4: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	<p>CO2 <= 2,137.306 thousand tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners.</p> <p>Based on the following: CO2 Emission Factor: (40 CFR 75, Equation G-4)</p> <p>Heat Input values: Based on manufacturer's data.</p> <p>Maximum permitted hours of natural gas combustion for each turbine and each duct burner [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>CO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>CO2 tons/month = (119 lb/MMBtu x 1020 MMBtu/MMScf x (CTGas + DBGas) MMScf/month / 2000 lbs/ton)</p> <p>Where: CTGas = total MMScf of gas consumed by the combustion turbines (CT) during the month, including fuel consumed during start-up and shut down. DBGas = total MMScf of gas consumed by the duct burners (DB) during the month. CO2 emission factor of 119 lb/MMBtu (from 40 CFR 75, equation G-4). [N.J.A.C. 7:27-22.16(o)]</p>	<p>CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	<p>Methane <= 153 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners.</p> <p>Based on the following: CH4 Emission Factor: Turbine: (AP-42, Table 3.1-2a) Duct Burner: (AP-42, Table 1.4-2)</p> <p>Heat Input values: Based on manufacturer's data.</p> <p>Maximum permitted hours of natural gas combustion for each turbine and each duct burner. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Methane: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Methane tons/month = [(18.3 lbs/hr turbine/db emission rate) x (total hours of operation during the month for two combustion turbines / duct burners operating simultaneously) / (2000 lb/ton)] + [(17.9 lbs/hr turbine emission rate) x (total hours of operation during the month for two combustion turbines without duct burners) / (2000 lb/ton)]. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
25	<p>HAPs (Total) <= 4.99 tons/yr. Based on the sum of individual HAP emissions. [N.J.A.C. 7:27-22.16(a)]</p>	<p>HAPs (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Total HAPs tons/month = Sum of the Total HAPs tons/month for each individual HAP. [N.J.A.C. 7:27-22.16(o)]</p>	<p>HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-21.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	<p>Acrolein <= 0.0582 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Acrolein: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> $\text{Acrolein tons/month} = \left[\left(X1 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y1 \text{ MMscf} \right) + \left(X2 \text{ lbs/MMBtu} \times 1020 \text{ MMBtu/MMscf} \times Y2 \text{ MMscf} \right) \right] \times (1 - \text{CE})$ <p>Where: X1 = the lb/MMBtu emission rate (from AP-42) for Turbines. X2 = the lb/MMBtu emission rate (from AP-42) for Duct Burners. Y1 = the monthly MMscf of gas consumed by the Turbines, including consumption during start-up and shut down. Y2 = the monthly MMscf of gas consumed by the Duct Burners. CE = Control Efficiency of CO Catalyst = 50%. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	<p>Benzene <= 0.233 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Benzene: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Benzene tons/month = [(X1 lbs/MMBtu x 1020 MMBtu/MMscf x Y1 MMscf) + (X2 lbs/MMBtu x 1020 MMBtu/MMscf x Y2 MMscf)]</p> <p>Where: X1 = the lb/MMBtu emission rate (from AP-42) for Turbines. X2 = the lb/MMBtu emission rate (from AP-42) for Duct Burners. Y1 = the monthly MMscf of gas consumed by the Turbines, including consumption during start-up and shut down. Y2 = the monthly MMscf of gas consumed by the Duct Burners. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	<p>Formaldehyde <= 2.15 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Formaldehyde: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceeding 11 months; monthly emissions shall be calculated as follows:</p> <p>Formaldehyde tons/month = [(X1 lbs/MMBtu x 1020 MMBtu/MMscf x Y1 MMscf) + (X2 lbs/MMBtu x 1020 MMBtu/MMscf x Y2 MMscf)]</p> <p>Where: X1 = the lb/MMBtu emission rate [(from CARB - CATEF database for natural gas fired turbines with SCR and /or CO catalyst) for Turbines. X2 = the lb/MMBtu emission rate (from AP-42) for Duct Burners. Y1 = the monthly MMscf of gas consumed by the Turbines, including consumption during start-up and shut down. Y2 = the monthly MMscf of gas consumed by the Duct Burners. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
29	<p>Polycyclic organic matter <= 0.0425 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Polycyclic organic matter: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceeding 11 months; monthly emissions shall be calculated as follows:</p> <p>Polycyclic Organic Matter tons/month = [(X1 lbs/MMBtu x 1020 MMBtu/MMscf x Y1 MMscf) + (X2 lbs/MMBtu x 1020 MMBtu/MMscf x Y2 MMscf)]</p> <p>Where: X1 = the lb/MMBtu emission rate (from AP-42) for Turbines. X2 = the lb/MMBtu emission rate (from AP-42) for Duct Burners. Y1 = the monthly MMscf of gas consumed by the Turbines, including consumption during start-up and shut down. Y2 = the monthly MMscf of gas consumed by the Duct Burners. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Polycyclic organic matter: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	<p>Toluene <= 2.51 tons/yr.</p> <p>This emission limit applies to the combined operation of (2) combustion turbines and (2) duct burners. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Toluene: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>Toluene tons/month = [(X1 lbs/MMBtu x 1020 MMBtu/MMscf x Y1 MMscf) + (X2 lbs/MMBtu x 1020 MMBtu/MMscf x Y2 MMscf)]</p> <p>Where: X1 = the lb/MMBtu emission rate (from AP-42) for Turbines. X2 = the lb/MMBtu emission rate (from AP-42) for Duct Burners. Y1 = the monthly MMscf of gas consumed by the Turbines, including consumption during start-up and shut down. Y2 = the monthly MMscf of gas consumed by the Duct Burners. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Toluene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record monthly and annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
31	<p>All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]</p>	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	<p>Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.</p> <p>Submit to: Northern Regional Office New Jersey Department of Environmental Protection 7 Ridgedale Avenue Cedar Knolls, NJ 07927 . [40 CFR 60.4(b)]</p>
33	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(1)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
34	<p>The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in section 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]</p>	None.	None.	<p>Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)]</p>
35	<p>The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]</p>	None.	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]</p>	<p>Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall contain the information required in 40 CFR 60.7(b) and be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
36	<p>Each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see section 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)]</p>	None.	<p>Other: Written reports of excess emissions shall include the following information: (1) The magnitude of excess emissions computed in accordance with section 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period and excess emissions. The process operating time during the reporting period. (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments. (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)].</p>	<p>Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. [40 CFR 60.7(f)]	None.	Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, all adjustments/maintenance performed on these systems or devices, and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the dates of the record, except as prescribed in 40 CFR 60.7(f)(1) through (3). Sources subject to 40 CFR 70, are required to retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application, per 40 CFR 70.6(a)(3)(ii)(B). [40 CFR 60.7(f)].	None.
38	Compliance with NSPS standards specified in this permit, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. [40 CFR 60.11(a)]	None.	None.	None.
39	The NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in the applicable standard. [40 CFR 60.11(c)]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
40	At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]	None.	None.	None.
41	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]	None.	None.	None.
42	All continuous emission monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests specified under 40 CFR Part 60.8. The owner or operator shall follow manufacturer's written recommendations for installation, operation and calibration of the device. [40 CFR 60.13(b)]	During any performance test required under 40 CFR Part 60.8 or within 30 days thereafter, the owner or operator shall conduct a performance evaluation of the continuous emission monitoring system in accordance with applicable performance specification in Appendix B of 40 CFR Part 60. Monitored by other method (provide description) upon occurrence of event. [40 CFR 60.13(c)]	None.	Within 60 days of completion of the performance test, furnish the Administrator two or, upon request, more copies of the results of the performance evaluation. Submit a report: As per the approved schedule. [40 CFR 60.13(c)(2)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
43	The owner or operator shall perform zero and span adjustments daily for continuous emission monitors and continuous opacity monitors following procedures outlined in 40 CFR Part 60.13(d)1 & 2. [40 CFR 60.13(d)]	None.	Other: Maintain records in accordance with 40 CFR 60.7(f). [40 CFR 60.13(d)].	None.
44	Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems referenced by 40 CFR 60.13(c) measuring emissions except opacity shall be in continuous operation. They shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(2)]	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	None.
45	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR Part 60 shall be used. [40 CFR 60.13(f)]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
46	<p>The owner or operator of all continuous monitoring systems (other than opacity) shall reduce all data to 1-hour averages for time periods. One-hour period is defined in 40 CFR 60.2 as any 60-minute period commencing on the hour. For a full operating hour, 1-hour averages shall be computed from at least four valid data points, i.e., one data point in each of the 15-minute quadrants of the hour. For a partial operating hour (any clock hour with less than 60 minutes of unit operation), the owner or operator shall follow all the procedures specified at 40 CFR 60.13(h)(2) to compute 1-hour averages. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. The owners and operators complying with the requirements in 40 CFR 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages. Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant). [40 CFR 60.13(h)(2)]</p>	None.	Other: See Applicable Requirement. [40 CFR 60.13(h)].	None.
47	<p>All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subpart to specify the emission limit. [40 CFR 60.13(h)(3)]</p>	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.
49	NO _x (Total) ≤ 15 ppmvd @ 15% O ₂ OR NO _x (total) ≤ 0.43 lb/MW-hr of useful output. This limit applies to a turbine that has heat input at peak load greater than 850 MMBtu/hr (HHV) firing natural gas and commenced construction, modification or reconstruction after February 18, 2005. [40 CFR 60.4320(a)]	NO _x (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs. The owner or operator shall conduct an initial performance test as required in 40 CFR 60.8. The subsequent testing shall only be conducted if choosing to comply with 40 CFR 60.4340(a). Test methods and procedures shall be consistent with the requirements of 40 CFR 60.4400 or, if a NO _x diluent CEMS is installed, consistent with 40 CFR 60.4405. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. For turbines with supplemental duct burner NO _x measurements shall be taken after the duct burner, which has to be in operation during the performance test. [40 CFR 60.4400]	NO _x (Total): Recordkeeping by stack test results at the approved frequency. [40 CFR 60.4460]	Submit a report: As per the approved schedule. The owner or operator shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
50	NO _x (Total) ≤ 96 ppmvd @ 15% O ₂ OR NO _x (total) ≤ 4.7 lb/MW-hr of useful output. This limit applies to a turbine that has output greater than 30 MW and whether turbine operating at less than 75 percent of peak load or turbine operating at temperature less than 0 degrees F. [40 CFR 60.4320(a)]	NO _x (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs. The owner or operator shall conduct an initial performance test as required in 40 CFR 60.8. The subsequent testing shall only be conducted if choosing to comply with 40 CFR 60.4340(a). Test methods and procedures shall be consistent with the requirements of 40 CFR 60.4400 or, if a NO _x diluent CEMS is installed, consistent with 40 CFR 60.4405. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. For turbines with supplemental duct burner NO _x measurements shall be taken after the duct burner, which has to be in operation during the performance test. [40 CFR 60.4400]	NO _x (Total): Recordkeeping by stack test results at the approved frequency. [40 CFR 60.4460]	Submit a report: As per the approved schedule. The owner or operator shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]
51	If there are two or more turbines that are connected to a single generator, each turbine must meet the NO _x emission limit for the appropriate size of a turbine. [40 CFR 60.4320(b)]	None.	None.	None.
52	SO ₂ ≤ 0.06 lb/MMBTU. No owner or operator shall burn any fuel which contains total potential sulfur emissions in excess of specified limit. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [40 CFR 60.4330(a)(2)]	Other: The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO ₂ per MMBtu heat input using sources of information listed in 40 CFR 60.4365(a) or perform representative fuel sampling as described in 60.4365(b). [40 CFR 60.4365].	None.	Submit documentation of compliance: Once initially. The permittee shall furnish the Administrator and NJDEP a written report of the results. The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO ₂ per MMBtu heat input using sources of information listed in 40 CFR 60.4365(a) or perform representative fuel sampling as described in 60.4365(b). [40 CFR 60.8(a)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
53	The owner or operator shall operate and maintain the subject stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction. [40 CFR 60.4333(a)]	None.	None.	None.
54	If the subject turbine is equipped with heat recovery unit and utilizes a common steam header with one or more combustion turbines the permittee shall determine compliance with the applicable NOx emission limits by measuring the emissions combined with the emissions from the other unit(s) utilizing the common heat recovery unit. [40 CFR 60.4333(b)(1)]	None.	None.	None.
55	To demonstrate continuous compliance with NOx limit, the owner or operator of the turbine that does not use water or steam injection may, as alternative to performing annual performance tests as described in 40 CFR 60.4340(a), install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NOx monitor and a diluent gas O2 or CO2 monitors to determine the hourly NOx emission rate in ppm or lb/MMBtu as described in 40 CFR 60.4335(b) and 60.4345. [40 CFR 60.4340(b)(1)]	Monitored by continuous emission monitoring system continuously. The continuous emission monitoring system as described in 40 CFR 60.4335(b) shall be consistent with the requirements of 40 CFR 60.4335(b) and 40 CFR 60.4345. [40 CFR 60.4345]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 60.4345]	None.
56	The permittee shall install and certify each NOx diluent CEMS in accordance with Performance Specifications 2 (PS2) as described in appendix B to 40 CFR 60. The 7 day calibration drift should be based on unit operating days, not calendar days. Upon the Bureau of Technical Services of NJDEP approval, Procedure 1 in appendix F to 40 CFR 60 is not required. The relative accuracy test audit (RATA) shall be performed on a lb/MMBtu basis. [40 CFR 60.4345(a)]	Monitored by continuous emission monitoring system continuously. During each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (Sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour, as specified in 40 CFR 60.13(e)(2). The permittee shall follow procedure described in 40 CFR 60.4345(b) for partial unit operating hours. [40 CFR 60.4345(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NOx CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.

U1 2 Turbines, each with HRSG

OS Summary

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
57	The permittee shall install and certify a NOx diluent CEMS in accordance with appendix A to 40 CFR 75. The relative accuracy test audit (RATA) shall be performed on a lb/MMBtu basis. [40 CFR 60.4345(a)]	Monitored by continuous emission monitoring system continuously. During each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (Sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour, as specified in 40 CFR 60.13(e)(2). The permittee shall follow procedure described in 40 CFR 60.4345(b) for partial unit operating hours. [40 CFR 60.4345(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NOx CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.
58	The permittee shall install, calibrate, maintain, and operate each fuel flowmeter in accordance with the manufacturer's instructions or, with NJDEP approval, in accordance with the requirements of appendix D to 40 CFR 75. [40 CFR 60.4345(c)]	Monitored by fuel flow/firing rate instrument continuously. Each fuel flowmeter shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. Alternatively, with the NJDEP approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR 75 are acceptable. [40 CFR 60.4345(c)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NOx CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.
59	The permittee shall install, calibrate, maintain, and operate each watt meter, steam flow meter, and each pressure or temperature measurement device in accordance with the manufacturer's instructions. [40 CFR 60.4345(d)]	Monitored by other method (provide description) continuously. The gross electrical output of the unit in megawatt-hours shall be monitored by watt meter (or meters) and shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. [40 CFR 60.4345(d)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. [40 CFR 60.4345(e)]	None.
60	The owner or operator may elect not to monitor the total sulfur content of the fuel combusted in the turbine if the fuel is demonstrated not to exceed potential sulfur emissions of 0.060 lb SO ₂ /MMBtu heat input for units located in continental areas. [40 CFR 60.4365]	Other: The required demonstration that the total sulfur content of the fuel does not exceed potential sulfur emissions of 0.060 lb SO ₂ /MMBtu shall be made using a current valid purchase contract, tariff sheet or transportation contract specifying that in continental areas the maximum total sulfur content for oil use is 0.05 weight percent (500 ppmw) and for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet. [40 CFR 60.4365(a)].	Recordkeeping by fuel certification receipts at the approved frequency The owner or operator shall keep copies of valid purchase contracts, tariff sheets or transportation contracts specifying that in continental areas the maximum total sulfur content for oil use is 0.05 weight percent (500 ppmw) and for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet. [40 CFR 60.4365]	Demonstrate compliance: Once initially. The owner or operator shall submit the required determination to the Administrator using the sources of information described in 40 CFR 60.4365(a) showing the maximum total sulfur content for continental areas for oil use at 0.05 weight percent or less and for natural gas at 20 grains of sulfur or less per 100 standard cubic feet or to demonstrate that fuel has potential sulfur emissions of less than 0.060 lb SO ₂ /MMBtu heat input. [40 CFR 60.4365(a)]

U1 2 Turbines, each with HRSG

OS Summary

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
61	The owner or operator shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) for Nitrogen oxides. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. An excess emissions as defined in 40 CFR 60.4380(b)1 is any unit operating period in which the 4-hour (for simple cycle turbines) or 30-day rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60.4320. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOx concentration, CO2 or O2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if used for compliance demonstration. [40 CFR 60.4380(b)]	Other: For the purposes of identifying excess emissions based on data from the continuous emission monitoring equipment the permittee shall follow procedures described in 40 CFR 60.4350(a), (b), (c), (e), (f), (g), and (h). If a NOx diluent CEMS meets the requirements of 40 CFR 75, the only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in subpart D of 40 CFR 75 are applied are to be reported as monitor downtime. [40 CFR 60.4350].	None.	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. All reports required under 40 CFR 60.7(c) must be postmarked by the 30th day following the end of each 6-moth period. [40 CFR 60.4395]
62	Acid Rain: The permittee shall comply with all of the requirements of the Phase II Acid Rain (AC) permit issued for this affected unit. [40 CFR 72]	Other: Comply with the requirements in the attached Acid Rain Permit (Appendix I).[40 CFR 72].	Other: Comply with the requirements in the attached Acid Rain Permit (Appendix I).[40 CFR 72].	Comply with the requirement: As per the approved schedule. Comply with the requirements in the attached Acid Rain Permit (Appendix I). [40 CFR 72]
63	CSAPR: The permittee shall comply with all the attached requirements of Cross-State Air Pollution Rule (CSAPR) for the CSAPR NOx Annual Trading Program, CSAPR NOx Ozone Season Trading Program, and CSAPR SO2 Group 1 Trading Program applicable to this affected unit. See CSAPR Attachment (appendix II). [40 CFR 97]	Other: See the monitoring requirements in the CSAPR Attachment (Appendix II).[40 CFR 97].	Other: See the recordkeeping requirements in the CSAPR Attachment (Appendix II).[40 CFR 97].	Other (provide description): Other See the submittal requirements in the CSAPR Attachment (Appendix II). [40 CFR 97]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG**Operating Scenario:** OS1 Combustion Turbine (CT) 1 firing natural gas at full load without supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 1, OS2 Combustion Turbine (CT) 2 firing natural gas at full load without supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 232 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input for one turbine. [N.J.A.C. 7:27-4.2(a)]	Particulate Emissions: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

U1 2 Turbines, each with HRSG

OS1, OS2

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(0)]	NO _x (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	Maximum Gross Heat Input <= 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
11	NOx (Total) <= 2 ppmvd @ 15% O2. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
12	NOx (Total) <= 2 ppmvd @ 15% O2. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NOx (Total) <= 0.0073 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	NOx (Total) <= 0.0073 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	NOx (Total) <= 16.8 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	NO _x (Total) ≤ 16.8 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NO _x (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
17	CO ≤ 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
18	CO ≤ 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	CO <= 0.0044 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
20	CO <= 0.0044 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
21	CO <= 10.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

U1 2 Turbines, each with HRSG

OS1, OS2

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	CO <= 10.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
23	VOC (Total) <= 1 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
24	VOC (Total) <= 0.001 lb/MMBTU. Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
25	VOC (Total) <= 2.9 lb/hr. Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
26	SO ₂ <= 2.8 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	SO ₂ : Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO ₂ : Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-21.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
27	TSP <= 6.6 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	TSP: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	PM-10 (Total) <= 11 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
29	PM-10 (Total) <= 11 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each hour during operation. The permittee shall demonstrate compliance with the lb/hr emission limit each hour during turbine operation using the following calculation:</p> $\text{PM10 (Total)} = \text{EF1 (lbs/MMBtu)} * \text{HI1 (MMBtu/hr)}; \text{ or}$ $\text{PM10 (Total)} = \text{EF2 (lbs/MMBtu)} * \text{HI2 (MMBtu/hr)}$ <p>Where: EF1 and EF2 is the emission factor for unit 1 or unit 2; This emission factor shall be the maximum stack test result (average of 3 valid stack test runs) obtained during any valid stack test, that was performed within the previous 12 months, for the combustion turbine without the duct burner operating.</p> <p>HI1 and HI2 is the total heat input of the natural gas combusted, by unit 1 or unit 2, during that hour by that combustion turbine without the duct burner operating. [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of lb/MMBtu emission factor and lb/hr emission rate calculated during each hour of operation. [N.J.A.C. 7:27-22.16(o)]	None.
30	PM-2.5 (Total) <= 11 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	PM-2.5 (Total) <= 11 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by calculations each hour during operation. The permittee shall demonstrate compliance with the lb/hr emission limit each hour during turbine operation using the following calculation:</p> <p>PM-2.5 (Total) = EF1 (lbs/MMBtu) * HI1 (MMBtu/hr); or PM-2.5 (Total) = EF2 (lbs/MMBtu) * HI2 (MMBtu/hr)</p> <p>Where: EF1 and EF2 is the emission factor for unit 1 or unit 2; This emission factor shall be the maximum stack test result (average of 3 valid stack test runs) obtained during any valid stack test, that was performed within the previous 12 months, for the combustion turbine without the duct burner operating.</p> <p>HI1 and HI2 is the total heat input of the natural gas combusted, by unit 1 or unit 2, during that hour by that combustion turbine without the duct burner operating. [N.J.A.C. 7:27-22.16(o)]</p>	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of lb/MMBtu emission factor and lb/hr emission rate calculated during each hour of operation. [N.J.A.C. 7:27-22.16(o)]	None.
32	Ammonia <= 5 ppmvd @ 15% O2. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.
33	Ammonia <= 16 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.
34	Sulfuric Acid Mist Emissions <= 1.36 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	Sulfuric Acid Mist Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Methane <= 20 lb/hr. Based on AP-42 emission factor (AP-42, Table 3.1-2a) and heat input established by the initial PSD permit. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
36	Acrolein <= 0.00678 lb/hr. Based on maximum permitted heat input, AP-42 emission factor (AP-42, Table 3.1-3) and 50% emission control by CO Catalyst. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
37	Benzene <= 0.0278 lb/hr. Based on maximum permitted heat input and AP-42 emission factor (AP-42, Table 3.1-3). [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
38	Formaldehyde <= 0.255 lb/hr. Based on maximum permitted heat input and emission factor from CARB - CATEF database for natural gas fired turbines with SCR and/or CO catalyst. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
39	Polycyclic organic matter <= 0.0051 lb/hr. Based on maximum permitted heat input and AP-42 emission factor (AP-42, Table 3.1-3). [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
40	Toluene <= 0.302 lb/hr. Based on maximum permitted heat input and AP-42 emission factor (AP-42, Table 3.1-3). [N.J.A.C. 7:27-22.16(a)]	Toluene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG**Operating Scenario:** OS3 Combustion Turbine (CT) 1 firing natural gas at full load with supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 1, OS4 Combustion Turbine (CT) 2 firing natural gas at full load with supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 253.1 lb/hr. Particulate emission limit from the combustion of natural gas. Based on rated heat input for one turbine and one duct burner. [N.J.A.C. 7:27- 4.2(a)]	Particulate Emissions: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

U1 2 Turbines, each with HRSG

OS3, OS4

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(0)]	NO _x (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	Duct Burner fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
11	Maximum Gross Heat Input \leq 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
12	Maximum Gross Heat Input \leq 211 MMBTU/hr (HHV) per duct burner firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
13	NOx (Total) \leq 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	NOx (Total) <= 2 ppmvd @ 15% O2. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	NOx (Total) <= 0.0073 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
16	NOx (Total) <= 0.0073 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	NO _x (Total) ≤ 16.5 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
18	NO _x (Total) ≤ 16.5 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NO _x (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
19	CO ≤ 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

U1 2 Turbines, each with HRSG

OS3, OS4

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	CO <= 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
21	CO <= 0.0045 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
22	CO <= 0.0045 lb/MMBTU. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	CO <= 10 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
24	CO <= 10 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
25	VOC (Total) <= 2 ppmvd @ 15% O ₂ . Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
26	VOC (Total) <= 0.0025 lb/MMBTU. Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	VOC (Total) <= 5.7 lb/hr. Based on manufacturer guarantee. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
28	SO2 <= 2.5 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-21.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
29	TSP <= 7.9 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	TSP: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
30	PM-10 (Total) <= 13.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	PM-10 (Total) <= 13.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each hour during operation. The permittee shall demonstrate compliance with the lb/hr emission limit each hour during turbine operation using the following calculation:</p> <p>PM10 (Total) = EF1 (lbs/MMBtu) * HI1 (MMBtu/hr); or PM10 (Total) = EF2 (lbs/MMBtu) * HI2 (MMBtu/hr)</p> <p>Where: EF1 and EF2 is the emission factor for unit 1 or unit 2; This emission factor shall be the maximum stack test result (average of 3 valid stack test runs) obtained during any valid stack test, that was performed within the previous 12 months, for the combustion turbine with the duct burner operating.</p> <p>HI1 and HI2 is the total heat input of the natural gas combusted, by unit 1 or unit 2, during that hour by that combustion turbine with the duct burner operating. [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of lb/MMBtu emission factor and lb/hr emission rate calculated during each hour of operation. [N.J.A.C. 7:27-22.16(o)]	None.
32	PM-2.5 (Total) <= 13.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results prior to permit expiration date. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See "RENEWAL STACK TESTING SUMMARY" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	PM-2.5 (Total) <= 13.2 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by calculations each hour during operation. The permittee shall demonstrate compliance with the lb/hr emission limit each hour during turbine operation using the following calculation:</p> <p>PM-2.5 (Total) = EF1 (lbs/MMBtu) * HI1 (MMBtu/hr); or PM-2.5 (Total) = EF2 (lbs/MMBtu) * HI2 (MMBtu/hr)</p> <p>Where: EF1 and EF2 is the emission factor for unit 1 or unit 2; This emission factor shall be the maximum stack test result (average of 3 valid stack test runs) obtained during any valid stack test, that was performed within the previous 12 months, for the combustion turbine with the duct burner operating.</p> <p>HI1 and HI2 is the total heat input of the natural gas combusted, by unit 1 or unit 2, during that hour by that combustion turbine with the duct burner operating. [N.J.A.C. 7:27-22.16(o)]</p>	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of lb/MMBtu emission factor and lb/hr emission rate calculated during each hour of operation. [N.J.A.C. 7:27-22.16(o)]	None.
34	Ammonia <= 5 ppmvd @ 15% O2. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.
35	Ammonia <= 15 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.
36	Sulfuric Acid Mist Emissions <= 1.33 lb/hr. Based on manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	Sulfuric Acid Mist Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	Methane <= 18.6 lb/hr. Based on AP-42 emission factors (AP-42, Table 3.1-2a and Table 1.4-2) and heat input established by the initial PSD permit. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
38	Acrolein <= 0.00608 lb/hr. Based on AP-42 emission factor for turbine (AP-42, Table 3.1-3) and 50% emission control by CO Catalyst. Heat Input value based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
39	Benzene <= 0.0253 lb/hr. Based on AP-42 emission factors (AP-42, Table 3.1-3 and Table 1.4-3). Heat Input values based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
40	Formaldehyde <= 0.242 lb/hr. Based on emission factor from CARB - CATEF database for natural gas fired turbines with SCR and/or CO catalyst and AP-42 emission factor for duct burner (AP-42, Table 1.4-3). Heat Input values based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
41	Polycyclic organic matter <= 0.00459 lb/hr. Based on AP-42 emission factors (AP-42, Table 3.1-3 and Table 1.4-3). Heat Input values based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
42	Toluene <= 0.271 lb/hr. Based on AP-42 emission factors (AP-42, Table 3.1-3 and Table 1.4-3). Heat Input values based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	Toluene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG**Operating Scenario:** OS5 Combustion Turbine (CT) 1 Cold start-up, OS6 Combustion Turbine (CT) 2 Cold start-up

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 232 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of one turbine (without duct burner operating). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	None.	None.	None.
6	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
8	Maximum Gross Heat Input <= 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	<p>Start-up Period: Start-up is defined as the period of time from initiation of combustion of fuel in the combustion turbine until it achieves steady-state operation at a load of 52.9% of maximum operating load.</p> <p>A Cold Start-up is defined as a start-up which occurs after the turbine has been shut down for 72 hours or more. The duration of a cold start-up shall not exceed 201 minutes. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Start-up Period: Monitored by hour/time monitor continuously, based on an instantaneous determination.</p> <p>Monitor the duration of any period during which the turbine is not operated in order to determine the type of start-up that follows (cold, warm or hot).</p> <p>Monitor the duration of each period of start up in order to demonstrate compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Start-up Period: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event.</p> <p>Record the duration of any period during which the turbine is not operated in order to document the type of start-up that follows (cold, warm or hot).</p> <p>Record the duration of each period of start up in order to document compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	None.
10	<p>Maximum number of Cold startups shall not exceed 50 in any 365 day period. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitored by observation upon occurrence of event, based on a consecutive 365 day period (rolling 1 day basis)[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain a record of total cold start-ups, warm start-ups, hot start-ups, and shutdowns. [N.J.A.C. 7:27-22.16(o)]</p>	None.
11	<p>Testing of the emergency generator shall not occur at the same time as start-up or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other: Verify that the emergency generator is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	None.
12	<p>Testing of the fire pump shall not occur at the same time as startup or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other: Verify that the fire pump is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NO _x (Total) ≤ 140.6 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	CO ≤ 723 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) ≤ 42.4 lb/hr per turbine during cold start-up. This limit includes Formaldehyde emissions. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <= 2.8 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-21.16(o)].	None.
17	TSP <= 6.6 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
18	PM-10 (Total) <= 11 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
19	PM-2.5 (Total) <= 11 lb/hr per turbine during cold start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
20	Ammonia <= 10 ppmvd @ 15% O2 per turbine during cold start-up. Based on operating data. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG

Operating Scenario: OS7 Combustion Turbine (CT) 1 Warm start-up, OS8 Combustion Turbine (CT) 2 Warm start-up

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 232 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of one turbine (without duct burner operating). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	None.	None.	None.
6	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
8	Maximum Gross Heat Input <= 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	<p>Start-up Period: Start-up is defined as the period of time from initiation of combustion of fuel in the combustion turbine until it achieves steady-state operation at a load of 52.9% of maximum operating load.</p> <p>A Warm Start-up is defined as a start-up which occurs after the turbine has been shut down for at least 8 hours but less than 72 hours. The duration of a warm start-up shall not exceed 95 minutes. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Start-up Period: Monitored by hour/time monitor continuously, based on an instantaneous determination.</p> <p>Monitor the duration of any period during which the turbine is not operated in order to determine the type of start-up that follows (cold, warm or hot).</p> <p>Monitor the duration of each period of start up in order to demonstrate compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Start-up Period: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event.</p> <p>Record the duration of any period during which the turbine is not operated in order to document the type of start-up that follows (cold, warm or hot).</p> <p>Record the duration of each period of start up in order to document compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	None.
10	Maximum combined number of warm or hot start-ups shall not exceed 250 in any 365 day period. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by observation upon occurrence of event, based on a consecutive 365 day period (rolling 1 day basis)[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain a record of total cold start-ups, warm start-ups, hot start-ups, and shutdowns. [N.J.A.C. 7:27-22.16(o)]	None.
11	Testing of the emergency generator shall not occur at the same time as start-up or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]	Other: Verify that the emergency generator is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
12	Testing of the fire pump shall not occur at the same time as startup or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]	Other: Verify that the fire pump is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NO _x (Total) ≤ 96.8 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	CO ≤ 437.7 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) ≤ 25.3 lb/hr per turbine during warm start-up. This limit includes Formaldehyde emissions. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <= 2.8 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-21.16(o)].	None.
17	TSP <= 6.6 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
18	PM-10 (Total) <= 11 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
19	PM-2.5 (Total) <= 11 lb/hr per turbine during warm start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
20	Ammonia <= 10 ppmvd @ 15% O2 per turbine during warm start-up. Based on operating data. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG**Operating Scenario:** OS9 Combustion Turbine (CT) 1 Hot start-up, OS10 Combustion Turbine (CT) 2 Hot start-up

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 232 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of one turbine (without duct burner operating). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O2. VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	None.	None.	None.
6	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
8	Maximum Gross Heat Input <= 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	<p>Start-up Period: Start-up is defined as the period of time from initiation of combustion of fuel in the combustion turbine until it achieves steady-state operation at a load of 52.9% of maximum operating load.</p> <p>A Hot Start-up is defined as a start-up which occurs when the turbine has been shut down for less than 8 hours. The duration of a hot start-up shall not exceed 39 minutes. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Start-up Period: Monitored by hour/time monitor continuously, based on an instantaneous determination.</p> <p>Monitor the duration of any period during which the turbine is not operated in order to determine the type of start-up that follows (cold, warm or hot).</p> <p>Monitor the duration of each period of start up in order to demonstrate compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Start-up Period: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event.</p> <p>Record the duration of any period during which the turbine is not operated in order to document the type of start-up that follows (cold, warm or hot).</p> <p>Record the duration of each period of start up in order to document compliance with the maximum duration for that type of start-up. [N.J.A.C. 7:27-22.16(o)]</p>	None.
10	<p>Maximum combined number of warm or hot start-ups shall not exceed 250 in any 365 day period. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitored by observation upon occurrence of event, based on a consecutive 365 day period (rolling 1 day basis)[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain a record of total cold start-ups, warm / hot start-ups, and shutdowns. [N.J.A.C. 7:27-22.16(o)]</p>	None.
11	<p>Testing of the emergency generator shall not occur at the same time as start-up or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other: Verify that the emergency generator is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	None.
12	<p>Testing of the fire pump shall not occur at the same time as startup or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other: Verify that the fire pump is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NO _x (Total) ≤ 95.2 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	CO ≤ 553.2 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) ≤ 27.1 lb/hr per turbine during hot start-up. This limit includes Formaldehyde emissions. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <= 2.8 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-21.16(o)].	None.
17	TSP <= 6.6 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
18	PM-10 (Total) <= 11 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
19	PM-2.5 (Total) <= 11 lb/hr per turbine during hot start-up. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
20	Ammonia <= 10 ppmvd @ 15% O2 per turbine during hot start-up. Based on operating data. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U1 2 Turbines, each with HRSG**Operating Scenario:** OS11 Combustion Turbine (CT) 1 Shut Down, OS12 Combustion Turbine (CT) 2 Shut Down

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 232 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of one turbine (without duct burner operating). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. Compliance shall be based upon the average of emissions over one calendar day, not including periods of equipment downtime. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	VOC (Total) <= 50 ppmvd @ 15% O ₂ . VOC RACT rule emission limit applies during all operation of the turbine. [N.J.A.C. 7:27-16.9(c)]	None.	None.	None.
6	NO _x (Total) <= 0.75 lb/MW-hr (net). NO _x RACT emission limit applies during all periods of natural gas combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	Turbine fuel is limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
8	Maximum Gross Heat Input <= 2,320 MMBTU/hr (HHV) per turbine firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	Shutdown Period: Shutdown is defined as the period of time from initial lowering of the combustion turbine fuel input, with the intent to cease generation of electrical power output, until the cessation of turbine operation. The duration of shut down shall not exceed 18 minutes. [N.J.A.C. 7:27-22.16(a)]	Shutdown Period: Monitored by hour/time monitor continuously, based on an instantaneous determination. Monitor the duration of each period of shut down in order to demonstrate compliance with the maximum duration of shut down. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record the duration of each period of shut down in order to document compliance with the maximum duration of shut down. [N.J.A.C. 7:27-22.16(o)]	None.
10	Maximum number of shut downs shall not exceed 300 in any 365 day period. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by observation upon occurrence of event, based on a consecutive 365 day period (rolling 1 day basis)[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain a record of total cold start-ups, warm / hot start-ups, and shutdowns. [N.J.A.C. 7:27-22.16(o)]	None.
11	Testing of the emergency generator shall not occur at the same time as start-up or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]	Other: Verify that the emergency generator is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
12	Testing of the fire pump shall not occur at the same time as startup or shut down of any turbine. [N.J.A.C. 7:27-22.16(o)]	Other: Verify that the fire pump is not being tested before commencing start-up or shut down of a combustion turbine.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NO _x (Total) <= 25 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	NO _x (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	CO <= 546 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) <= 14 lb/hr per turbine during shut down. This limit includes Formaldehyde emissions. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <= 2.8 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-21.16(o)].	None.
17	TSP <= 6.6 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
18	PM-10 (Total) <= 11 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
19	PM-2.5 (Total) <= 11 lb/hr per turbine during shut down. Based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors used to project startup emissions.[N.J.A.C. 7:27-22.16(o)].	None.
20	Ammonia <= 10 ppmvd @ 15% O2 per turbine during shut down. Based on operating data. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See "CONTINUOUS PROCESS MONITORING" in OS Summary.[N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS PROCESS MONITORING" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U2 Cooling Tower

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 52 PSD [None]	None.	None.	None.
2	Particulate Emissions <= 30 lb/hr based on 0.02 grains per SCF. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
3	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27- 6.2(d)]	None.	None.	None.
4	<p>Total Throughput <= 2,267 tons/yr. Maximum total chemical additives that can be added to the cooling tower water.</p> <p>Cooling water chemicals shall be limited to:</p> <ul style="list-style-type: none"> - Chlorine Dioxide - 1-Hydroxyethylidene-1,1-diphosphonic acid - Potassium phosphate, dibasic - Tetrapotassium pyrophosphate - Sulfuric Acid (pH control) - Sodium Hypochlorite (biocide) - Alcohol (C8 - 10) ethoxylated propoxylated - Severely hydrotreated mineral oil <p>Provided it does not result in an increase in actual emissions, does not contain any HAP and complies with all other requirements at N.J.A.C. 7:27-22.20, a chemical not already authorized by this operating permit, can be added to the above list of permitted cooling water treatment chemicals by submitting an administrative amendment to the Department.</p> <p>Water treatment chemicals containing hexavalent chromium shall not be added to the circulating water. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Review of process records showing each chemical added to the cooling tower water, each month during operation, based on a consecutive 12 month period (rolling 1 month basis).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Total Throughput: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation in a permanently bound log book or readily accessible computer memory</p> <p>Process records shall show:</p> <ul style="list-style-type: none"> - The date the chemical was added; - The name of each chemical added; and - the amount of each chemical added. <p>Maintain a record, each month, of:</p> <ul style="list-style-type: none"> - The total quantity of each chemical added to the cooling tower water during that month; and - The total quantity of all chemicals added to the cooling tower water during the 12 month period that concludes with that month, as calculated below: Total tons/year = Total tons/month for a given month + Total tons/month for the immediately preceding 11 months. [N.J.A.C. 7:27-22.16(o)] 	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	This source shall be equipped with high efficiency drift eliminators. The quantity of drift shall be less than 0.0005% of the circulating water flow. [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction once initially. [N.J.A.C. 7:27-22.16(o)]	None.	None.
6	TSP <= 9.74 tons/yr. Based on cooling tower operation for 8500 hr/yr at the permitted hourly emission rate. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>TSP (total) tons/month = 2.29 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
7	PM-10 (Total) <= 5.66 tons/yr. Based on cooling tower operation for 8500 hr/yr at the permitted hourly emission rate. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>PM-10 (total) tons/month = 1.33 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	PM-2.5 (Total) <= 2 tons/yr. Based on cooling tower operation for 8500 hr/yr at the permitted hourly emission rate. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows: PM-2.5 (total) tons/month = 0.47 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U2 Cooling Tower

Operating Scenario: OS1 Cooling Tower

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Cooling tower circulation water flow rate \leq 220,870 gallons per minute (gpm). [N.J.A.C. 7:27-22.16(a)]	Monitored by other method (provide description) continuously, based on 1 minute intervals. Continuously monitor the recirculation flow rate using the Distributed Control System (DCS). The DCS shall calculate and display the cooling tower circulation flow rate each minute, using the pump output rating (GPM) and the operating time. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Record the pump operation and the calculated flow rate in the Data Historian each minute during operation. [N.J.A.C. 7:27-22.16(o)]	None.
2	Total Dissolved Solids (TDS) concentration in the cooling tower circulating water \leq 4,150 mg/liter. [N.J.A.C. 7:27-22.16(a)]	Monitored by grab sampling each month during operation for analysis of circulating water. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Maintain records of circulating water analysis. [N.J.A.C. 7:27-22.16(o)]	None.
3	pH: pH \geq 6.0 and pH \leq 10.5 Acceptable range for pH of the cooling tower water. If pH drops below this range, an alarm shall sound and the sulfuric acid feed shall be locked out. [N.J.A.C. 7:27-22.16(o)]	pH: Monitored by pH instrument continuously, based on an instantaneous determination. The pH of the cooling tower water shall be monitored by a continuous dual channel pH monitor with an alarm and sulfuric acid feed lock out system which are activated when the pH goes below this range. [N.J.A.C. 7:27-22.16(o)]	pH: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Maintain a record of the pH of the cooling tower water and a record of any instance where the pH goes outside of the permitted range. [N.J.A.C. 7:27-22.16(o)]	None.
4	Oxidation Reduction Potential \geq 175 and Oxidation Reduction Potential \leq 600 millivolts. Acceptable range for the oxidation reduction potential of the cooling tower water. [N.J.A.C. 7:27-22.16(a)]	Oxidation Reduction Potential: Monitored by oxidation/reduction potential meter continuously, based on a 1 hour block average. The ORP of the cooling tower water shall be monitored by a continuous ORP meter with an alarm system which is activated when the ORP goes below this range. [N.J.A.C. 7:27-22.16(o)]	Oxidation Reduction Potential: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Maintain a record of the ORP of the cooling tower water and a record of any instance where the ORP goes outside of the permitted range. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>TSP <= 2.29 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]</p>	<p>TSP: Monitored by calculations each month during operation :</p> <p>TSP (lb/hr) = 0.000501 x D x C x TDS; where:</p> <p>D = fraction of circulating water lost to drift = 0.0005% (based on permitted maximum drift) C = cooling tower circulating water flow rate (gal/min) = monitored by the Distributed Control System (DCS) TDS = total dissolved solids concentration in circulating water (mg/l)</p> <p>A sample of the circulating water will be taken once every month, at minimum, and analyzed for TDS. [N.J.A.C. 7:27-22.16(o)]</p>	<p>TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation</p> <p>Records shall be maintained on site for a period of five (5) years after the date of each record and made available to the representatives of the Department upon request. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Submit a report: Annually on January 31 for the preceding calendar year. The report shall be submitted to the NJDEP Northern Regional Enforcement Office.</p> <p>The report must contain:</p> <ol style="list-style-type: none"> 1. A log of the total dissolved solids concentration of the circulating water flow. A sample will be taken and recorded during Cooling Tower operation a minimum of every month in which the Cooling Tower operates; 2. The calculated maximum hourly particulate emissions in pounds per hour; 3. The calculated maximum cumulative particulates emissions in tons per year; and 4. Description of any maintenance procedures applied to the cooling tower. [N.J.A.C. 7:27-21.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	PM-10 (Total) <= 1.33 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each month during operation :</p> <p>PM-10 (lb/hr) = 0.000501 x D x C x TDS x A; where:</p> <p>D = fraction of circulating water lost to drift = 0.0005% (based on permitted maximum drift)</p> <p>C = cooling tower circulating water flow rate (gal/min) = monitored by the Distributed Control System (DCS)</p> <p>TDS = total dissolved solids concentration in circulating water (mg/l),</p> <p>A = PM-10 fraction = 0.5808.</p> <p>A sample of the circulating water will be taken once every month, at minimum, and analyzed for TDS. [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation</p> <p>Records shall be maintained on site for a period of five (5) years after the date of each record and made available to the representatives of the Department upon request. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Submit a report: Annually on January 31 for the preceding calendar year. The report shall be submitted to the NJDEP Northern Regional Enforcement Office.</p> <p>The report must contain:</p> <ol style="list-style-type: none"> 1. A log of the total dissolved solids concentration of the circulating water flow. A sample will be taken and recorded during Cooling Tower operation a minimum of every month in which the Cooling Tower operates; 2. The calculated maximum hourly particulate emissions in pounds per hour; 3. The calculated maximum cumulative particulates emissions in tons per year; and 4. Description of any maintenance procedures applied to the cooling tower. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	PM-2.5 (Total) <= 0.47 lb/hr. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by calculations each month during operation :</p> <p>PM-2.5 (lb/hr) = 0.000501 x D x C x TDS x A; where:</p> <p>D = fraction of circulating water lost to drift = 0.0005% (based on permitted maximum drift)</p> <p>C = cooling tower circulating water flow rate (gal/min) = monitored by the Distributed Control System (DCS)</p> <p>TDS = total dissolved solids concentration in circulating water (mg/l),</p> <p>A = PM-2.5 fraction = 0.2052</p> <p>A sample of the circulating water will be taken once every month, at minimum, and analyzed for TDS. [N.J.A.C. 7:27-22.16(o)]</p>	<p>PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation</p> <p>Records shall be maintained on site for a period of five (5) years after the date of each record and made available to the representatives of the Department upon request. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Submit a report: Annually on January 31 for the preceding calendar year. The report shall be submitted to the NJDEP Northern Regional Enforcement Office.</p> <p>The report must contain:</p> <ol style="list-style-type: none"> 1. A log of the total dissolved solids concentration of the circulating water flow. A sample will be taken and recorded during Cooling Tower operation a minimum of every month in which the Cooling Tower operates; 2. The calculated maximum hourly particulate emissions in pounds per hour; 3. The calculated maximum cumulative particulates emissions in tons per year; and 4. Description of any maintenance procedures applied to the cooling tower. [N.J.A.C. 7:27-22.16(o)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U3 1.5 MW Emergency Generator

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 52 PSD 40 CFR 60 Subpart A (Emergency Generator) 40 CFR 60 Subpart IIII (Emergency Generator) [None]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only:</p> <ol style="list-style-type: none"> 1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1] 	<p>Monitored by hour/time monitor continuously.</p> <p>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</p> <p>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).</p> <p>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing and maintenance) - (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information:</p> <ol style="list-style-type: none"> 1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs. 2. For each time the emergency generator is specifically operated for testing or maintenance: <ol style="list-style-type: none"> i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator; and 3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction. <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and. [N.J.A.C. 7:27-19.11]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>This emergency generator shall not be used:</p> <p>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information: For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator. [N.J.A.C. 7:27-19.11]	None.
5	The duration of a testing event is restricted to 30 minutes. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
6	The emergency generator shall not be tested at the same time as the fire pump. [N.J.A.C. 7:27-22.16(a)]	Other: Verify that the fire pump is not operating before commencing emergency generator testing.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of emergency generator operation (as required under U3, OS Summary) and Periods of fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
7	Testing of the emergency generator shall not occur at the same time as start-up or shut down of any turbine. [N.J.A.C. 7:27-22.16(a)]	Other: Verify that no combustion turbine is in start-up or shut down mode before commencing emergency generator testing.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency generator operation (as required under U3, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NO _x (Total) ≤ 0.926 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.2(a) and [40 CFR 52.21]	<p>NO_x (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>NO_x (total) tons/month = 18.5 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	NO _x (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
9	CO ≤ 0.578 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and [40 CFR 52.21]	<p>CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>CO (total) tons/month = 11.6 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	VOC (Total) <= 0.131 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.2(a)]	<p>VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>VOC (total) tons/month = 2.62 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
11	TSP <= 0.029 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>TSP (total) tons/month = 0.588 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	PM-10 (Total) <= 0.033 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>PM-10 (total) tons/month = 0.661 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
13	PM-2.5 (Total) <= 0.033 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>PM-2.5 (total) tons/month = 0.661 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
14	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]
16	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]	None.	None.	None.
17	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.
18	The owner or operator of a 2007 model year and later emergency generator with the displacement of ≥ 10 liters per cylinder and less than 30 liters per cylinder must comply with the certification emissions standards for new marine engine in 40 CFR 94.8 for the same displacement and same maximum engine power, as prescribed at 40 CFR 60.4202(e)(1) through (4) as follows: NMHC + NO _x ≤ 4.8 g/HP-hr, CO ≤ 2.6 g/HP-hr, PM ≤ 0.15 g/HP-hr. [40 CFR 60.4205(b)]	None.	Other: The owner or operator of a 2007 model year or later engine must keep manufacturer certification showing compliance with the applicable emission standards, for the same model year and maximum engine power. [40 CFR 60.4211].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Owners and operators of stationary CI internal combustion engines must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. [40 CFR 60.4206]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions over the entire life of the engine. If the manufacturer's emission-related written instructions are not followed, the owner or operator must keep the results of the performance test(s) demonstrating compliance with the applicable emission limits. [40 CFR 60.4206].	None.
20	Beginning October 1, 2007, the CI internal combustion engines subject to NSPS IIII (manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005) that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a) that contains the following per gallon standards: 500 ppm (0.05 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(a)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery Invoice, certificate of analysis. [N.J.A.C. 7:27- 8.13(d)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records, per 40 CFR 60.7(f). [N.J.A.C. 7:27- 8.13(d)]	None.
21	Beginning October 1, 2010, the CI internal combustion engines with a displacement of less than 30 liters per cylinder subject to NSPS IIII (manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005) that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) that contains the following per gallon standards: 15 ppm (0.0015 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207(b)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery invoice, certificate of analysis. [N.J.A.C. 7:27- 8.13(d)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records per 40 CFR 60.7(f). [N.J.A.C. 7:27- 8.13(d)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines, except for engines that have been modified or reconstructed, and except for engines that were removed from one existing location and reinstalled at a new location. [40 CFR 60.4208]	None.	None.	None.
23	Owners and operators of a stationary CI internal combustion engine equipped with a diesel particulate filter must install a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)]	Monitored by pressure measurement device continuously. The backpressure monitor must alert the operator when the diesel particulate filter requires service. The service monitor should be mounted in a location that is clearly visible to the operator during operation. [40 CFR 60.4209(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)]	None.
24	The owner or operator that must comply with the emission standards specified in NSPS IIII must operate and maintain the stationary CI internal combustion engine and control device, except as permitted under 40 CFR 60.4211(g), according to the manufacturer's emission-related written instructions. In addition, owners and operators may only change emission-related settings that are permitted by the manufacturer. The owner or operator must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. [40 CFR 60.4211(a)]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions. If not complying with manufacturer's emission-related written instructions or emission-related settings, the owner or operator shall must keep a maintenance plan, records of conducted maintenance, and conduct a performance test(s), as prescribed at 40 CFR 60.4211(g). [40 CFR 60.4211].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	<p>The owner or operator of a 2007 model year and later stationary CI internal combustion engine complying with the emission standards specified in 40 CFR 60.4204(b) or 40 CFR 60.4205(b), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b) or 40 CFR 60.4205(b) as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]</p>	<p>None.</p>	<p>Other: The owner or operator must keep documentation from the manufacturer, for the life of the equipment, that the engine is certified to meet the emission standards as applicable, for the same model year and maximum engine power. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. [40 CFR 60.4211(c)].</p>	<p>None.</p>
26	<p>Emergency stationary internal combustion engines may be operated for the purpose of maintenance checks and readiness testing limited to 100 hours per year, provided that those tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. [40 CFR 60.4211(f)(2)(i)]</p>	<p>Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must record the time of operation of the emergency engine and the reason the engine was in operation during that time. Starting with the model year 2011, 2012, or 2013, depending on the maximum engine power as provided in Table 5 in NSPS IIII, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter if the emergency engine does not meet the standards in 40 CFR 60.4204, applicable to non-emergency engines, in the applicable model year. The emergency engine must comply with the labeling requirements in 40 CFR 60.4210(f). [40 CFR 60.4214(b)]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	A new or reconstructed stationary RICE located at an area HAP source must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60 subpart IIII, for compression ignition engines or 40 CFR 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63. [40 CFR 63.6590(c)]	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U3 1.5 MW Emergency Generator
Operating Scenario: OS1 1.5 MW Emergency Generator

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary internal combustion engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Particulate Emissions <= 6.872 lb/hr. Particulate emission limit from the combustion of ULSD based on rated heat input of emergency generator. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015 % by weight). Maximum allowable sulfur content in No. 2 and lighter fuel oil. [N.J.A.C. 7:27-22.16(a)], and. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Emergency generator fuel limited to ultra low sulfur distillate fuel oil (ULSD) [sulfur content <= 15 ppm]. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum Gross Heat Input <= 14.36 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain documentation showing maximum heat input rating.[N.J.A.C. 7:27-22.16(o)].	None.
6	NOx (Total) <= 18.5 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1). [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1) and. [40 CFR 52.21]	NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
7	CO <= 11.6 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1). [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	VOC (Total) <= 2.62 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1). This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
9	TSP <= 0.588 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1) and AP-42 distribution of particulate matter (AP-42, Table 3.4-2). [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
10	PM-10 (Total) <= 0.661 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1). [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
11	PM-2.5 (Total) <= 0.661 lb/hr. Based on emission factor for tier 2 engines (40 CFR 89.112, Table 1). [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U4 270 HP Fire Pump

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 52 PSD 40 CFR 60 Subpart A (Fire Pump) 40 CFR 60 Subpart IIII (Fire Pump) [None]	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only:</p> <ol style="list-style-type: none"> 1. During the performance of normal testing and maintenance procedures, including other fire protection equipment, as recommended in writing by the fire pump or fire protection system manufacturer and/or as required in writing by a Federal or State law or regulation, 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or 3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu, or 4. To provide power to pump water for fire suppression or protection, or in case of flood, even if there is no power outage and primary source of mechanical energy has not failed. [N.J.A.C. 7:27-22.16(a)] and [N.J.A.C. 7:27-19.1] 	<p>Monitored by hour/time monitor continuously.</p> <p>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; and the total fuel usage calculated by the following:</p> <p>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).</p> <p>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing or maintenance) . [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator shall maintain on site and record the following information:</p> <ol style="list-style-type: none"> 1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month) and the hours of operation for emergency use (per month). Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency that occurred, the damages to the primary source of energy and the amount of time needed for repairs. 2. For each time the emergency generator is specifically operated for testing or maintenance: <ol style="list-style-type: none"> i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator; and 3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction. <p>The owner or operator of an emergency generator shall maintain the above records for a period no less than 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</p>	<p>None.</p>

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>This emergency generator shall not be used:</p> <p>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	None.	None.	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information: For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator. [N.J.A.C. 7:27-19.11]	None.
5	The duration of a testing event is restricted to 30 minutes. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of emergency fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16]	None.
6	The emergency fire pump shall not be tested at the same time as the emergency generator. [N.J.A.C. 7:27-22.16(a)]	Other: Verify that the emergency generator is not operating before commencing fire pump testing. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of emergency generator operation (as required under U3, OS Summary) and Periods of emergency fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
7	Testing of the emergency fire pump shall not occur as the same time as startup or shutdown of any turbine. [N.J.A.C. 7:27-22.16(a)]	Other: Verify that no combustion turbine is in start-up or shut down mode before commencing fire pump testing. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Maintain a record of: Periods of turbine startup and shut down (as required under U1, OS5, OS6, OS7, OS8, OS9, OS10, OS11 and OS12) and Periods of emergency fire pump operation (as required under U4, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NO _x (Total) ≤ 0.0776 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.2(a)] and. [40 CFR 52.21]	<p>NO_x (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>NO_x (total) tons/month = 1.56 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	NO _x (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
9	CO ≤ 0.0777 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>CO (total) tons/month = 1.55 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	VOC (Total) <= 0.011 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.2(a)]	<p>VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>VOC (total) tons/month = 0.22 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
11	TSP <= 0.00395 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>TSP (total) tons/month = 0.079 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	PM-10 (Total) <= 0.00444 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>PM-10 (total) tons/month = 0.0887 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
13	PM-2.5 (Total) <= 0.00444 tons/yr. Based on maximum permitted hr/yr of operation for testing and maintenance. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis).</p> <p>The total annual emissions shall be calculated by adding the total monthly emissions for a given month to the total monthly emissions for the immediately preceding 11 months; monthly emissions shall be calculated as follows:</p> <p>PM-2.5 (total) tons/month = 0.0887 (lbs/hr) x monthly operating hours (hr/month) / 2000 (lbs/ton). [N.J.A.C. 7:27-22.16(o)]</p>	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
14	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]
16	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]	None.	None.	None.
17	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.
18	The owner or operator of a fire pump engine with a displacement of less than 30 liters per cylinder must comply with the emissions standards in table 4 to NSPS IIII for the same model year and nameplate engine power as follows: NMHC + NO _x ≤ 3.0 g/HP-hr, CO ≤ 2.6 g/HP-hr, PM ≤ 0.15 g/HP-hr. [40 CFR 60.4205(c)]	None.	Other: The owner or operator must keep documentation demonstrating compliance with the applicable emission standards, for the same model year and maximum engine power. [40 CFR 60.4211].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Owners and operators of stationary CI internal combustion engines must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 over the entire life of the engine. [40 CFR 60.4206]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions over the entire life of the engine. If the manufacturer's emission-related written instructions are not followed, the owner or operator must keep the results of the performance test(s) demonstrating compliance with the applicable emission limits. [40 CFR 60.4206].	None.
20	Beginning October 1, 2007, the CI internal combustion engines subject to NSPS IIII that use diesel fuel must use diesel fuel that contains the following per gallon standards: 500 ppm (0.05 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(a)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery Invoice, certificate of analysis. [N.J.A.C. 7:27- 8.13(d)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records per 40 CFR 60.7(f). [N.J.A.C. 7:27- 8.13(d)]	None.
21	Beginning October 1, 2010, the CI internal combustion engines with a displacement of less than 30 liters per cylinder subject to NSPS IIII that use diesel fuel must use diesel fuel that contains the following per gallon standards: 15 ppm (0.0015 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207(b)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery invoice, certificate of analysis. [N.J.A.C. 7:27- 8.13(d)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records per 40 CFR 60.7(f). [N.J.A.C. 7:27- 8.13(d)]	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Owners and operators of a stationary CI internal combustion engine equipped with a diesel particulate filter must install a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)]	Monitored by pressure measurement device continuously. The backpressure monitor must alert the operator when the diesel particulate filter requires service. The service monitor should be mounted in a location that is clearly visible to the operator during operation. [40 CFR 60.4209(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)]	None.
23	The owner or operator that must comply with the emission standards specified in NSPS IIII must operate and maintain the stationary CI internal combustion engine and control device, except as permitted under 40 CFR 60.4211(g), according to the manufacturer's emission-related written instructions. In addition, owners and operators may only change emission-related settings that are permitted by the manufacturer. The owner or operator must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. [40 CFR 60.4211(a)]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions. If not complying with manufacturer's emission-related written instructions or emission-related settings, the owner or operator shall must keep a maintenance plan, records of conducted maintenance, and conduct a performance test(s), as prescribed at 40 CFR 60.4211(g). [40 CFR 60.4211].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	The owner or operator of a fire pump engine that was manufactured starting with or after the model year that applies to the engine power rating and a rated speed in table 3 to NSPS IIII and must comply with the emission standards in 40 CFR 60.4205(c), must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]	None.	Other: The owner or operator must keep documentation from the manufacturer, for the life of the equipment, that the engine is certified to meet the emission standards. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. [40 CFR 60.4211(c)].	None.
25	Emergency stationary internal combustion engines may be operated for the purpose of maintenance checks and readiness testing limited to 100 hours per year, provided that those tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. [40 CFR 60.4211(f)(2i)]	Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must record the time of operation of the emergency engine and the reason the engine was in operation during that time. Starting with the model year 2011, 2012, or 2013, depending on the maximum engine power as provided in Table 5 in NSPS IIII, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter if the emergency engine does not meet the standards in 40 CFR 60.4204, applicable to non-emergency engines, in the applicable model year. The emergency engine must comply with the labeling requirements in 40 CFR 60.4210(f). [40 CFR 60.4214(b)]	None.
26	A new or reconstructed stationary RICE located at an area HAP source must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engines or 40 CFR 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63. [40 CFR 63.6590(c)]	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U4 270 HP Fire Pump

Operating Scenario: OS1 270 HP Fire Pump

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary internal combustion engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Particulate Emissions <= 1.24 lb/hr. Particulate emission limit from the combustion of ULSD based on rated heat input of emergency fire pump. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015 % by weight). Maximum allowable sulfur content in No. 2 and lighter fuel oil. [N.J.A.C. 7:27-22.16(a)], and. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
4	Emergency fire pump fuel limited to ultra low sulfur distillate fuel oil (ULSD) [sulfur content <= 15 ppm]. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum Gross Heat Input <= 2.06 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain documentation showing maximum heat input rating.[N.J.A.C. 7:27-22.16(o)].	None.
6	NOx (Total) <= 1.56 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4). [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7-27-18.3(b)(1)] and. [40 CFR 52.21]	NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
7	CO <= 1.55 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4). [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

BOP160004

**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	VOC (Total) <= 0.22 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4). This limit includes Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)] and. [N.J.A.C. 7:27-18.3(b)1]	VOC (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
9	TSP <= 0.079 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4) and AP-42 distribution of particulate matter (AP-42, Table 3.4-2). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
10	PM-10 (Total) <= 0.0887 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4). [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.
11	PM-2.5 (Total) <= 0.0887 lb/hr. Based on emission factor for post-2009 fire pump engines (40 CFR 60 Subpart III, Table 4). [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Maintain initial calculations and make available to the Department upon request.[N.J.A.C. 7:27-22.16(o)].	None.

NEWARK ENERGY CENTER (08857)
BOP160004

Date: 11/7/2019

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): NEWARK ENERGY CENTER

Facility ID (AIMS): 08857

Street 955 DELANCY ST
Address: NEWARK, NJ 07105

Mailing 955 DELANCY ST
Address: NEWARK, NJ 07105

County: Essex
Location
Description:

State Plane Coordinates: X-Coordinate: Y-Coordinate: Units: Datum: Source Org.: Source Type:

Industry: Primary SIC: 4911 Secondary SIC: NAICS: 221112

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: Newark Energy Center

Org. Type: Corporation

Name: Monica Howell

NJ EIN: 00452391369

Title: Environmental Manager

Phone: (609) 221-2859 x

Mailing Address: 955 DELANCY ST

Fax: () - x

NEWARK, NJ 07105

Other: () - x

Type:

Email: mhowell@ppmsllc.com

Contact Type: BOP - Operating Permits

Organization: NJDEP

Org. Type: State

Name: Michael Hogan

NJ EIN:

Title: Environmental Engineer 2

Phone: (609) 633-1124 x

Mailing Address: Mail Code 41-02

Fax: (609) 633-1112 x

DEP Air Quality Program, PO Box 420
401 East State Street, 2nd Floor
Trenton, NJ 08625-0420

Other: () - x

Type:

Email: michael.hogan@dep.nj.gov

Contact Type: Fees/Billing Contact

Organization: Newark Energy Center, LLC

Org. Type: Corporation

Name: Richard Grubb

NJ EIN: 00452391369

Title: Vice President, Project Management

Phone: (704) 315-4432 x

Mailing Address: 955 DELANCY ST

Fax: (973) 466-1550 x

NEWARK, NJ 07105

Other: () - x

Type:

Email: rgrubb@ppmsllc.com

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: General Contact

Organization: Newark Energy Center

Org. Type: Corporation

Name: Monica Howell

NJ EIN: 00452391369

Title: Environmental Manager

Phone: (609) 221-2859 x

Mailing Address: 955 DELANCY ST

Fax: () - x

Address: NEWARK, NJ 07105

Other: () - x

Type:

Email: mhowell@ppmsllc.com

Contact Type: Operator

Organization: Newark Energy Center, LLC

Org. Type: Corporation

Name: Ronald Dolinski

NJ EIN: 00452391369

Title: Plant Manager

Phone: (973) 900-2123 x

Mailing Address: 955 DELANCY ST

Fax: (973) 274-1540 x

Address: Newark, NJ 07105

Other: () - x

Type:

Email: Ronald.Dolinski@naes.com

Contact Type: Owner (Current Primary)

Organization: Newark Energy Center, LLC

Org. Type: Corporation

Name: Richard Grubb

NJ EIN: 00452391369

Title: Vice President, Project Management

Phone: (704) 315-4432 x

Mailing Address: 955 DELANCY ST

Fax: (973) 466-1550 x

Address: NEWARK, NJ 07105

Other: () - x

Type:

Email: rgrubb@ppmsllc.com

NEWARK ENERGY CENTER (08857)
BOP160004

Date: 11/7/2019

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Responsible Official

Organization: Newark Energy Center, LLC

Org. Type: Corporation

Name: Richard Grubb

NJ EIN: 00452391369

Title: Vice President, Project Managment

Phone: (704) 315-4432 x

Mailing Address: 955 DELANCY ST

Fax: (973) 466-1550 x

Address: NEWARK, NJ 07105

Other: () - x

Type:

Email: rgrubb@ppmsllc.com

**New Jersey Department of Environmental Protection
Insignificant Source Emissions**

IS NJID	Source/Group Description	Equipment Type	Location Description	Estimate of Emissions (tpy)								
				VOC (Total)	NOx	CO	SO	TSP	PM-10	Pb	HAPS (Total)	Other (Total)
IS1	(2) Ultra Low Sulfur Distillate (ULSD) Storage Tanks (350 gallon and 550 gallon)	Storage Vessel		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS3	Sulfuric Acid Storage Tank - (1) 20,000 gal tank	Storage Vessel		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.007
Total				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.007

**New Jersey Department of Environmental Protection
Equipment Inventory**

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1	Turbine 1	Combustion Turbine 1	Combustion Turbine			No		
E2	Turbine 2	Combustion Turbine 2	Combustion Turbine			No		
E3	HRSO 1	HRSO w/ Duct Burner 1	Duct Burner			No		
E4	HRSO 2	HRSO w/ Duct Burner 2	Duct Burner			No		
E6	Em Gen	1.5 MW Emergency Generator	Emergency Generator			No		
E7	Fire Pump	270 HP Fire Pump	Emergency Generator			No		
E8	CoolingTower	Cooling Tower	Other Equipment			No		

08857 NEWARK ENERGY CENTER BOP160004 E1 (Combustion Turbine)
Print Date: 11/7/2019

Make:	<input type="text" value="GE 7FA"/>		
Manufacturer:	<input type="text" value="GE"/>		
Model:	<input type="text" value="7FA.05"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="2,320.00"/>		
Type of Turbine:	<input type="text" value="Industrial"/>		
Type of Cycle:	<input type="text" value="Combined-Cycle"/>	Description:	<input type="text"/>
Industrial Application:	<input type="text" value="Electrical Generator"/>	Description:	<input type="text"/>
Power Output:	<input type="text" value="225.00"/>	Units:	<input type="text" value="Megawatts"/>
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	<input type="text"/>
Water Injection:	<input type="checkbox"/>	Water to Fuel Ratio:	<input type="text"/>
Other:	<input type="checkbox"/>	Description:	<input type="text"/>
Is the turbine Equipped with a Duct Burner?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Comments:	<input type="text" value="Total Facility Generating Capacity: 705 MW
Breakdown: Each CT: 225 MW, Steam Turbine: 205 MW, each Duct Burner: 25 MW"/>		

08857 NEWARK ENERGY CENTER BOP160004 E2 (Combustion Turbine)
Print Date: 11/7/2019

Make:	<input type="text" value="GE 7FA"/>		
Manufacturer:	<input type="text" value="GE"/>		
Model:	<input type="text" value="7FA.05"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="2,320.00"/>		
Type of Turbine:	<input type="text" value="Industrial"/>		
Type of Cycle:	<input type="text" value="Combined-Cycle"/>	Description:	<input type="text"/>
Industrial Application:	<input type="text" value="Electrical Generator"/>	Description:	<input type="text"/>
Power Output:	<input type="text" value="225.00"/>	Units:	<input type="text" value="Megawatts"/>
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	<input type="text"/>
Water Injection:	<input type="checkbox"/>	Water to Fuel Ratio:	<input type="text"/>
Other:	<input type="checkbox"/>	Description:	<input type="text"/>
Is the turbine Equipped with a Duct Burner?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	<input type="text" value="Total Facility Generating Capacity: 705 MW
Breakdown: Each CT: 225 MW, Steam Turbine: 205 MW, each Duct Burner: 25 MW"/>		

08857 NEWARK ENERGY CENTER BOP160004 E3 (Duct Burner)
Print Date: 11/7/2019

Make:	De Jong DJC
Manufacturer:	De Jong Combustion
Model:	DJC
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	211.00
Equipment Type Description:	Supplementary-fired heat recovery steam generator (HRSG)

Have you attached a diagram showing the location and/or the configuration of this equipment?

Yes
 No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Yes
 No

Comments:

Total Facility Generating Capacity: 705 MW
Breakdown: Each CT: 225 MW, Steam Turbine: 205 MW, each Duct Burner: 25 MW

Include Emission Rates on the Potential to Emit Screen for each contaminant in ppmvd @ 7%O2 in addition to lbs/hr and tons/yr.

08857 NEWARK ENERGY CENTER BOP160004 E4 (Duct Burner)
Print Date: 11/7/2019

Make:	De Jong DJC
Manufacturer:	De Jong Combustion
Model:	DJC
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	211.00
Equipment Type Description:	Supplementary-fired heat recovery steam generator (HRSG)

Have you attached a diagram showing the location and/or the configuration of this equipment?

Yes
 No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

Yes
 No

Comments: Total Facility Generating Capacity: 705 MW
Breakdown: Each CT: 225 MW, Steam Turbine: 205 MW, each Duct Burner: 25 MW

Include Emission Rates on the Potential to Emit Screen for each contaminant in ppmvd @ 7%O2 in addition to lbs/hr and tons/yr.

08857 NEWARK ENERGY CENTER BOP160004 E6 (Emergency Generator)
Print Date: 11/7/2019

Make:

Manufacturer:

Model:

Maximum rated Gross Heat Input (MMBtu/hr-HHV):

Will the equipment be used in excess of 500 hours per year?
 Yes
 No

Have you attached a diagram showing the location and/or the configuration of this equipment?
 Yes
 No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?
 Yes
 No

Comments:

08857 NEWARK ENERGY CENTER BOP160004 E7 (Emergency Generator)
Print Date: 11/7/2019

Make:

Manufacturer:

Model:

Maximum rated Gross Heat Input (MMBtu/hr-HHV):

Will the equipment be used in excess of 500 hours per year?
 Yes
 No

Have you attached a diagram showing the location and/or the configuration of this equipment?
 Yes
 No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?
 Yes
 No

Comments:

08857 NEWARK ENERGY CENTER BOP160004 E8 (Other Equipment)
Print Date: 11/7/2019

Make:	Marley F400 Clearsky
Manufacturer:	SPX Cooling Technologies
Model:	F4117D-6.0-12
Equipment Type:	Cooling Tower
Capacity:	5.40
Units:	other units
Description:	mega-gallons per day
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	12 cell cooling tower with 0.0005% drift eliminator efficiency.

BOP160004

**New Jersey Department of Environmental Protection
Control Device Inventory**

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD101	SCR 1	Selective Catalytic Reduction for Turbine 1	Selective Catalytic Reduction		No		
CD102	Ox Cat 1	CO Oxidation Catalyst for Turbine 1	Oxidizer (Catalytic)		No		
CD201	SCR 2	Selective Catalytic Reduction for Turbine 2	Selective Catalytic Reduction		No		
CD202	Ox Cat 2	CO Oxidation Catalyst for Turbine 2	Oxidizer (Catalytic)		No		

08857 NEWARK ENERGY CENTER BOP160004 CD101 (Selective Catalytic Reduction)
Print Date: 11/7/2019

Make:	DNX
Manufacturer:	Haldor Topsoe, Inc
Model:	DNX Catalyst
Minimum Temperature at Catalyst Bed (°F):	400
Maximum Temperature at Catalyst Bed (°F):	825
Minimum Temperature at Reagent Injection Point (°F):	400
Maximum Temperature at Reagent Injection Point (°F):	825
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	NH3OH
Minimum Reagent Charge Rate (gpm):	0.8
Maximum Reagent Charge Rate (gpm):	0.9
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum NOx to Reagent Mole Ratio:	
Maximum NOx to Reagent Mole Ratio:	
Maximum Anticipated Ammonia Slip (ppm):	5
Type of Catalyst:	Ceramic
Volume of Catalyst (ft³):	
Form of Catalyst:	Ceramic Monolith Modules
Anticipated Life of Catalyst:	120
Units:	months
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	2
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	NOx CEM
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No

Have you attached a diagram showing the location and/or configuration of this control apparatus?

Yes No

08857 NEWARK ENERGY CENTER BOP160004 CD101 (Selective Catalytic Reduction)
Print Date: 11/7/2019

Comments:

The maximum concentration of ammonia in solution is 19% by weight

08857 NEWARK ENERGY CENTER BOP160004 CD102 (Oxidizer (Catalytic))
Print Date: 11/7/2019

Make:	ADCAT
Manufacturer:	Emero Chem
Model:	ADCAT
Minimum Inlet Temperature (°F):	350
Maximum Inlet Temperature (°F)	800
Minimum Outlet Temperature (°F)	350
Maximum Outlet Temperature (°F):	800
Minimum Residence Time (sec)	
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	2320
Minimum Pressure Drop Across Catalyst (psi):	0.02
Maximum Pressure Drop Across Catalyst (psi):	0.05
Catalyst Material:	Platinum / Palladium / Rhodium / Alumna / Stainless Steel Monolith
Form of Catalyst:	Other
Description:	Module Carbon Steel Fram
Minimum Expected Life of Catalyst:	120
Units:	months
Volume of Catalyst (ft³):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	2
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	CO CEM
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	

08857 NEWARK ENERGY CENTER BOP160004 CD201 (Selective Catalytic Reduction)
Print Date: 11/7/2019

Make:	DNX
Manufacturer:	Haldor Topsoe, Inc
Model:	DNX Catalyst
Minimum Temperature at Catalyst Bed (°F):	400
Maximum Temperature at Catalyst Bed (°F):	825
Minimum Temperature at Reagent Injection Point (°F):	400
Maximum Temperature at Reagent Injection Point (°F):	825
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	NH3OH
Minimum Reagent Charge Rate (gpm):	0.8
Maximum Reagent Charge Rate (gpm):	0.9
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum NOx to Reagent Mole Ratio:	
Maximum NOx to Reagent Mole Ratio:	
Maximum Anticipated Ammonia Slip (ppm):	5
Type of Catalyst:	Ceramic
Volume of Catalyst (ft³):	
Form of Catalyst:	Ceramic Monolith Modules
Anticipated Life of Catalyst:	120
Units:	months
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	2
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	NOx CEM
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No

Have you attached a diagram showing the location and/or configuration of this control apparatus?

Yes No

08857 NEWARK ENERGY CENTER BOP160004 CD201 (Selective Catalytic Reduction)
Print Date: 11/7/2019

Comments:

The maximum concentration of ammonia in solution is 19% by weight

08857 NEWARK ENERGY CENTER BOP160004 CD202 (Oxidizer (Catalytic))
Print Date: 11/7/2019

Make:	ADCAT
Manufacturer:	Emero Chem
Model:	ADCAT
Minimum Inlet Temperature (°F):	350
Maximum Inlet Temperature (°F)	800
Minimum Outlet Temperature (°F)	350
Maximum Outlet Temperature (°F):	800
Minimum Residence Time (sec)	
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	2320
Minimum Pressure Drop Across Catalyst (psi):	0.02
Maximum Pressure Drop Across Catalyst (psi):	0.05
Catalyst Material:	Platinum / Palladium / Rhodium / Alumna / Stainless Steel Monolith
Form of Catalyst:	Other
Description:	Module Carbon Steel Fram
Minimum Expected Life of Catalyst:	120
Units:	months
Volume of Catalyst (ft³):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	2
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	CO CEM
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT1	Turbine 1	Turbine 1 and HRSG Emission Point	Round	222	252	185	181.2	161.3	300.0	1,121,050.0	0.0	1,232,750.0	Up	
PT2	Turbine 2	Turbine 2 and HRSG Emission Point	Round	222	252	185	181.2	161.3	300.0	1,121,050.0	0.0	1,232,750.0	Up	
PT6	Em Gen	Emergency Generator Emission Point	Round	12	50	273	948.7	948.7	948.7	11,174.0	0.0	11,174.0	Up	
PT7	Fire Pump	Fire Pump Emission Point	Round	6	50	240	826.0	826.0	826.0	1,644.0	0.0	1,644.0	Up	
PT8	Cooling Tower	Cooling Tower Emission Point (diameter and flow rate are per cell)	Round	384	72	23	85.0	32.0	120.0	1,442,650.0	0.0	1,442,650.0	Up	

NEWARK ENERGY CENTER (08857)
BOP160004

Date: 11/7/2019

New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

U 1 2 Turbine/DB 2 Turbines, each with HRSG

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	CT1	Combustion Turbine (CT) 1 firing natural gas at full load without supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 1	Normal - Steady State	E1	CD101 (P) CD102 (S)	PT1		0.0	8,760.0		0.0	1,232,750.0	161.3	187.3
OS2	CT2	Combustion Turbine (CT) 2 firing natural gas at full load without supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 2	Normal - Steady State	E2	CD201 (P) CD202 (S)	PT2		0.0	8,760.0		0.0	1,232,750.0	161.3	187.3
OS3	CT / HRSG 1	Combustion Turbine (CT) 1 firing natural gas at full load with supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 1	Normal - Steady State	E3	CD101 (P) CD102 (S)	PT1		0.0	1,800.0		0.0	1,232,750.0	161.3	187.3
OS4	CT / HRSG 2	Combustion Turbine (CT) 2 firing natural gas at full load with supplemental duct burner firing in Heat Recovery Steam Generator (HRSG) 2	Normal - Steady State	E4	CD201 (P) CD202 (S)	PT2		0.0	1,800.0		0.0	1,232,750.0	161.3	187.3
OS5	CT1 Cold SU	Combustion Turbine (CT) 1 Cold start-up	Startup	E1		PT1		0.0	167.5		0.0	1,232,750.0	161.3	187.3
OS6	CT2 Cold SU	Combustion Turbine (CT) 2 Cold start-up	Startup	E2		PT2		0.0	167.5		0.0	1,232,750.0	161.3	187.3
OS7	CT1 Warm SU	Combustion Turbine (CT) 1 Warm start-up	Startup	E1		PT1		0.0	395.0		0.0	1,232,750.0	161.3	187.3
OS8	CT2 Warm SU	Combustion Turbine (CT) 2 Warm start-up	Startup	E2		PT2		0.0	395.0		0.0	1,232,750.0	161.3	187.3

NEWARK ENERGY CENTER (08857)
BOP160004

Date: 11/7/2019

New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

U 1 2 Turbine/DB 2 Turbines, each with HRSG

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS9	CT1 Hot SU	Combustion Turbine (CT) 1 Hot start-up	Startup	E1		PT1		0.0			0.0	1,232,750.0	161.3	187.3
OS10	CT2 Hot SU	Combustion Turbine (CT) 2 Hot start-up	Startup	E2		PT2		0.0			0.0	1,232,750.0	161.3	187.3
OS11	CT1 SD	Combustion Turbine (CT) 1 Shut Down	Shutdown	E1		PT1		0.0	90.0		0.0	1,232,750.0	161.3	187.3
OS12	CT2 SD	Combustion Turbine (CT) 2 Shut Down	Shutdown	E2		PT2		0.0	90.0		0.0	1,232,750.0	161.3	187.3

U 2 CoolingTower Cooling Tower

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	CoolingTower	Cooling Tower	Normal - Steady State	E8		PT8		0.0	8,760.0		0.0	1,442,650.0	32.0	120.0

NEWARK ENERGY CENTER (08857)
BOP160004

Date: 11/7/2019

New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

U 3 Em Gen 1.5 MW Emergency Generator

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	Em Gen	1.5 MW Emergency Generator	Normal - Steady State	E6		PT6		0.0	100.0		0.0	11,174.0	70.0	775.9

U 4 Fire Pump 270 HP Fire Pump

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	Fire Pump	270 HP Fire Pump	Normal - Steady State	E7		PT7		0.0	100.0		0.0	1,644.0	70.0	750.0

**New Jersey Department of Environmental Protection
Subject Item Group Inventory**

Group NJID: GR1 Emissions

Members:

Type	ID	OS	Step
IS	IS3		
U	U 1	OS0 Summary	
U	U 2	OS0 Summary	
U	U 3	OS0 Summary	
U	U 4	OS0 Summary	

Formal Reason(s) for Group/Cap:

Other

Other (explain): Facility Wide annual emission limits for all sources combined

Condition/Requirements that will be complied with or are no longer applicable as a result of this Group:

None

Operating Circumstances:

Facility Wide PTE

**New Jersey Department of Environmental Protection
Subject Item Group Inventory**

Group NJID: GR2 GHG

Members:

Type	ID	OS	Step
U	U 1	OS0 Summary	
U	U 3	OS0 Summary	
U	U 4	OS0 Summary	

Formal Reason(s) for Group/Cap:

Other

Other (explain): Consolidate all GHG Requirements in one location

Condition/Requirements that will be complied with or are no longer applicable as a result of this Group:

None

Operating Circumstances:

Greenhouse Gas Requirements

**New Jersey Department of Environmental Protection
Subject Item Group Inventory**

Group NJID: GR10 RGGI

Members:

Type	ID	OS	Step
E	E 1		
E	E 2		

Formal Reason(s) for Group/Cap:

Other

Other (explain): RGGI Requirements

Condition/Requirements that will be complied with or are no longer applicable as a result of this Group:

RGGI

Operating Circumstances:

All Operation

Appendix I:

PHASE II ACID RAIN PERMIT

Issued to: Newark Energy Center, LLC
955 Delancy Street
Newark, Essex County, New Jersey, 07105

Owned by: Newark Energy Center, LLC
955 Delancy Street
Newark, Essex County, New Jersey, 07105

Operated by: Newark Energy Center, LLC
955 Delancy Street
Newark, Essex County, New Jersey, 07105

ORIS Code: 58079

Effective: November 1, 2017 thru October 31, 2022 (Coincide with the Operating Permit Date)

This Acid Rain Permit is issued under the authority of Chapter 106, P.L. 1967 (N.J.S.A 26:2C-9.2) and Titles IV and V of the Clean Air Act. The owners and operators of each affected unit at this facility shall comply with all of the requirements established in this permit.

Approved by:

Supervisor, Bureau of Stationary Sources

ACID RAIN PERMIT CONTENTS

- 1. STATEMENT OF BASIS**
- 2. UNIT SPECIFIC REQUIREMENTS**
- 3. COMMENTS, NOTES, AND JUSTIFICATIONS REGARDING PERMIT DECISIONS**
- 4. PHASE II PERMIT APPLICATION**

1. STATEMENT OF BASIS

In accordance with N.J.S.A. 26:2C-9.2 and Titles IV and V of the Clean Air Act, the Department issues this permit pursuant to N.J.A.C 7:27 et. seq.

2. UNIT SPECIFIC REQUIREMENTS

Refer to 40 CFR 72 for specific requirements.

3. COMMENTS, NOTES, AND JUSTIFICATIONS REGARDING PERMIT DECISIONS

This facility is subject to the Operating Permit regulations promulgated at N.J.A.C. 7:27-22. Therefore, the facility must obtain an Operating Permit. The procedures for incorporating this Acid Rain permit into the Operating Permit shall be consistent with the state requirements at N.J.A.C. 7:27-22.29, the federal requirements at 40 CFR 72, and any official guidance issued by USEPA.

4. PHASE II PERMIT APPLICATION

The owners and operators shall comply with all of the standard requirements and special provisions set forth on the attached Phase II Permit Application for each affected unit.

Permit Requirements**STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Sulfur Dioxide Requirements, Cont'd.**STEP 3, Cont'd.**

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission

of a new certificate of representation changing the designated representative;

STEP 3, Cont'd.**Recordkeeping and Reporting Requirements, Cont'd.**

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with

Newark Energy Center

Facility (Source) Name (from STEP 1)

any other provision of the Act, including the provisions of title I of the Act relating

STEP 3, Cont'd.

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

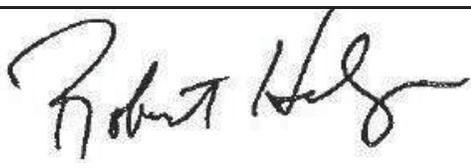
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Read the certification statement, sign, and date.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Robert B. Haley	
Signature 	Date 8/19/2016

Appendix II:

Cross-State Air Pollution Rule (CSAPR) Title V requirements for

- **CSAPR NO_x Annual Trading Program,**
- **CSAPR NO_x Ozone Season Trading Program, and**
- **CSAPR SO₂ Trading Program**

Transport Rule (TR) Trading Program Title V Requirements

TR NO_x Annual Trading Program requirements (40 CFR 97.406)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO_x Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

- (1) TR NO_x Annual emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall hold, in the source's compliance account, TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Annual units at the source.
 - (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Annual units at a TR NO_x Annual source are in excess of the TR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR NO_x Annual unit at the source shall hold the TR NO_x Annual allowances required for deduction under 40 CFR 97.424(d); and
 - (B). The owners and operators of the source and each TR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.
- (2) TR NO_x Annual assurance provisions.
 - (i). If total NO_x emissions during a control period in a given year from all TR NO_x Annual units at TR NO_x Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the

- common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR NO_x Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the state NO_x Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart AAAAAA or of the Clean Air Act if total NO_x emissions from all TR NO_x Annual units at TR NO_x Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Annual units at TR NO_x Annual sources in the state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold TR NO_x Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR NO_x Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAAA and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
 - (ii). A TR NO_x Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for such control period or a control period in a prior year.

- (ii). A TR NO_x Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - (5) Allowance Management System requirements. Each TR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.
 - (6) Limited authorization. A TR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i). Such authorization shall only be used in accordance with the TR NO_x Annual Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - (7) Property right. A TR NO_x Annual allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**
- (1) Unless otherwise provided, the owners and operators of each TR NO_x Annual source and each TR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Annual Trading Program.
 - (2) The designated representative of a TR NO_x Annual source and each TR NO_x Annual unit at the source shall make all submissions required under the TR NO_x Annual Trading Program, except

as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

- (1) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual source or the designated representative of a TR NO_x Annual source shall also apply to the owners and operators of such source and of the TR NO_x Annual units at the source.
- (2) Any provision of the TR NO_x Annual Trading Program that applies to a TR NO_x Annual unit or the designated representative of a TR NO_x Annual unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR NO_x Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Annual source or TR NO_x Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

TR NO_x Ozone Season Trading Program Requirements (40 CFR 97.506)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_x Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_x Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NO_x emissions requirements.

- (1) TR NO_x Ozone Season emissions limitation.
 - (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_x emissions for such control period from all TR NO_x Ozone Season units at the source.
 - (ii). If total NO_x emissions during a control period in a given year from the TR NO_x Ozone Season units at a TR NO_x Ozone Season source are in excess of the TR NO_x Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall hold the TR NO_x Ozone Season allowances required for deduction under 40 CFR 97.524(d); and
 - (B). The owners and operators of the source and each TR NO_x Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBB and the Clean Air Act.
- (2) TR NO_x Ozone Season assurance provisions.
 - (i). If total NO_x emissions during a control period in a given year from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the state

and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_x Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying—

- (A). The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR NO_x Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO_x emissions from all TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_x emissions from the TR NO_x Ozone Season units at TR NO_x Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold TR NO_x Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR NO_x Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
 - (ii). A TR NO_x Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_x Ozone

Season allowance that was allocated for such control period or a control period in a prior year.

- (ii). A TR NO_x Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_x Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- (5) Allowance Management System requirements. Each TR NO_x Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB.
- (6) Limited authorization. A TR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i). Such authorization shall only be used in accordance with the TR NO_x Ozone Season Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- (7) Property right. A TR NO_x Ozone Season allowance does not constitute a property right.

(d) Title V permit revision requirements.

- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_x Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

- (1) Unless otherwise provided, the owners and operators of each TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_x Ozone Season Trading Program.

(2) The designated representative of a TR NO_x Ozone Season source and each TR NO_x Ozone Season unit at the source shall make all submissions required under the TR NO_x Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

(1) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season source or the designated representative of a TR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_x Ozone Season units at the source.

(2) Any provision of the TR NO_x Ozone Season Trading Program that applies to a TR NO_x Ozone Season unit or the designated representative of a TR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR NO_x Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_x Ozone Season source or TR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

TR SO₂ Group 1 Trading Program requirements (40 CFR 97.606)

(a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

- (1) The owners and operators, and the designated representative, of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
- (2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of TR SO₂ Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO₂ Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) SO₂ emissions requirements.

(1) TR SO₂ Group 1 emissions limitation.

- (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall hold, in the source's compliance account, TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO₂ emissions for such control period from all TR SO₂ Group 1 units at the source.
- (ii). If total SO₂ emissions during a control period in a given year from the TR SO₂ Group 1 units at a TR SO₂ Group 1 source are in excess of the TR SO₂ Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:
 - (A). The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall hold the TR SO₂ Group 1 allowances required for deduction under 40 CFR 97.624(d); and
 - (B). The owners and operators of the source and each TR SO₂ Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

(2) TR SO₂ Group 1 assurance provisions.

- (i). If total SO₂ emissions during a control period in a given year from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO₂ emissions during such control period exceeds the common designated representative's assurance level for the state and

such control period, shall hold (in the assurance account established for the owners and operators of such group) TR SO₂ Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying—

- (A). The quotient of the amount by which the common designated representative's share of such SO₂ emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO₂ emissions exceeds the respective common designated representative's assurance level; and
 - (B). The amount by which total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR SO₂ Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
 - (iii). Total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO₂ emissions exceed the sum, for such control period, of the state SO₂ Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).
 - (iv). It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO₂ emissions from all TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO₂ emissions from the TR SO₂ Group 1 units at TR SO₂ Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.
 - (v). To the extent the owners and operators fail to hold TR SO₂ Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,
 - (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
 - (B). Each TR SO₂ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
 - (ii). A TR SO₂ Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.
- (4) Vintage of allowances held for compliance.
- (i). A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for such control period or a control period in a prior year.

- (ii). A TR SO₂ Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR SO₂ Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
 - (5) Allowance Management System requirements. Each TR SO₂ Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.
 - (6) Limited authorization. A TR SO₂ Group 1 allowance is a limited authorization to emit one ton of SO₂ during the control period in one year. Such authorization is limited in its use and duration as follows:
 - (i). Such authorization shall only be used in accordance with the TR SO₂ Group 1 Trading Program; and
 - (ii). Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
 - (7) Property right. A TR SO₂ Group 1 allowance does not constitute a property right.
- (d) Title V permit revision requirements.**
- (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO₂ Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.
 - (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).
- (e) Additional recordkeeping and reporting requirements.**
- (1) Unless otherwise provided, the owners and operators of each TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
 - (i). The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each TR SO₂ Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.
 - (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.
 - (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO₂ Group 1 Trading Program.
 - (2) The designated representative of a TR SO₂ Group 1 source and each TR SO₂ Group 1 unit at the source shall make all submissions required under the TR SO₂ Group 1 Trading Program, except

as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

(f) Liability.

- (1) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 source or the designated representative of a TR SO₂ Group 1 source shall also apply to the owners and operators of such source and of the TR SO₂ Group 1 units at the source.
- (2) Any provision of the TR SO₂ Group 1 Trading Program that applies to a TR SO₂ Group 1 unit or the designated representative of a TR SO₂ Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR SO₂ Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR SO₂ Group 1 source or TR SO₂ Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.