State of New Jersey

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR, ENERGY AND MATERIALS SUSTAINABILITY
Division of Air Quality and Radiation Protection
Bureau of Stationary Sources
401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02
Trenton, NJ 08625-0420

SHAWN M. LATOURETTE
Commissioner

Air Pollution Control Operating Permit
Renewal with Significant Modification

Permit Activity Number: BOP230001 **Program Interest Number: 75808**

Mailing Address	Plant Location
JOHN LILLIE DIRECTOR VINELAND CITY MUNICIPAL ELECTRIC UTILITY PO BOX 1508 - 640 E WOOD ST Vineland, NJ 08362-1508	VINELAND CITY MEU CLAYVILLE 4087 S Lincoln Ave Vineland Cumberland County

Initial Operating Permit Approval Date: **December 5, 2018**
Operating Permit Approval Date: **Draft**
Operating Permit Expiration Date: **Approval Date + 5 years**

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 includes 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: https://dep.nj.gov/boss. 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 https://dep.nj.gov/boss.

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://dep.nj.gov/wp-content/uploads/boss/applications-and-forms/administrative-hearing-request-checklist-and-tracking-form.pdf .

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

Approved by:

_____
Aliya M. Khan

Enclosure

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

Facility Name: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

TABLE OF CONTENTS

Section A

Facility Name: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

POLLUTANT EMISSIONS SUMMARY

Table 1: Total emissions from all Significant Source Operations[1] 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	3.95	21.3	13.6	1.16	9.15	9.15	9.15	N/A	2.92	
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	3.95	21.3	13.6	1.16	9.15	9.15	9.15	N/A	2.92	121,475

Table 2: Estimate of total emissions from all Insignificant Source Operations[1] 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	0.491	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.025
Non-Source Fugitive Emissions	1.36	N/A	N/A	N/A	0.382	0.105	0.105	N/A	0.025

VOC: Volatile Organic Compounds
NOx: Nitrogen Oxides
CO: Carbon Monoxide
SO_2: Sulfur Dioxide
TSP: Total Suspended Particulates
Other: Any other air contaminant regulated under the Federal CAA
PM_{10}: Particulates under 10 microns
$PM_{2.5}$: Particulates under 2.5 microns
Pb: Lead
HAPs: Hazardous Air Pollutants
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.

Section A

Facility Name: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

POLLUTANT EMISSIONS SUMMARY

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

HAP	TPY
Acetaldehyde	0.655
Acetophenone	0.0678
Acrolein	0.0889
Arsenic	0.00022
Benzene	0.505
Benzo (A) Pyrene	0.000119
Beryllium	0.0000132
Biphenyl	0.0126
Cadmium	0.00121
Chromium (Hexavalent)	0.00188
Cobalt	0.000114
Ethylbenzene	0.0731
Formaldehyde	1.33
Manganese	0.000627
Napthalene	0.0101
Nickel	0.00231
Polynuclear Aromatic Hydrocarbons (PAHs)	0.0103
Propylene Oxide	0.0753
Styrene	0.0784

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

Other Air Contaminant	TPY
Ammonia	7.05
Methane	3.01
Nitrous Oxide	0.501

[3] 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: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

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. 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)]

11. 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)]

12. 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]

13. 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)]

14. 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.

15. 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.

16. 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).

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. 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.

19. 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).

20. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website https://dep.nj.gov/boss/applications-and-forms/ (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: https://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.

21. 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.

22. Consistent with EPA's National Stack Testing Guidance and Technical Manual 1004, a facility may not stop an ongoing stack test because it would have failed the test unless the facility also ceases operation of the equipment in question to correct the issue. Stopping an ongoing stack test in these instances will be considered credible evidence of emissions non-compliance.

23. 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)]

24. 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]

Section C

Facility Name: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

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:

SECTION	SUBJECT ITEM	ITEM #	REF. #
B	---	1	---
B	---	10b	---
D	FC	---	3
D	FC	---	9
D	GR10	---	ALL
D	GR11	---	ALL

Section D

Facility Name: VINELAND CITY MEU CLAYVILLE
Program Interest Number: 75808
Permit Activity Number: BOP230001

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

VINELAND CITY MEU CLAYVILLE (75808)
BOP230001

Date: 11/2/2023

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 230002

Description of Modifications: Operating Permit Renewal

Specific Changes:
1) Update facility contact information in the facility profile section of the permit.
2) The expiration date of the renewed operating permit will be 5 years after the approval date, rather than 5 years after the expiration date of the current permit.
3) Include a compliance schedule for performing permit term stack testing for PM-10 and PM-2.5 (U1, OSS, REF#5) for the permit term that ends 12/4/23 because the facility has not yet performed this stack testing that should have been completed by 6/4/22.
4) Add hourly and annual methane, nitrous oxide, benzo(a)pyrene and chromium (hexavalent) emission limits for the turbine, because potential emissions exceed the reporting thresholds (U1 - OSS, OS1, OS2, OS3 and OS4). These emissions are not new but were not included in the permit previously.
5) Add hourly emission limits for all HAPs previously reported as being emitted from the turbine to the start-up and shut down operating scenarios (U1 - OS2, OS3 and OS4).
6) Revise (increase) the annual emission limits for HAPs previously included in the permit, to account for higher emissions during startup and/or shut down, because the emission control device is not as effective during those periods of operation.
7) Remove annual Greenhouse Gas emission limit from U1, OSS as this facility is not subject to PSD so it is not necessary to include this emission limit in the permit.
8) Move emission control device permit conditions to the emission control device section of the operating permit (before the emission unit operating scenarios).
9) Add GR11, which contains applicable permit requirements from the recently adopted rule "Carbon Dioxide Emission Reductions from Electric Generating Units" (N.J.A.C. 7:27F-2).
10) Incorporate (3) 7-day notices into the permit. These 7-day notices do not result in any actual changes to the permit.
BOP200001: swap out turbine so that offsite repairs could be performed;
BOP210001: swap out turbine to re-install repaired turbine;
BOP230003: swap out turbine so that offsite repairs could be performed.
11) Initial stack testing (U1, OSS, REF#2) was performed on the turbine (TST190001) and compliance demonstrated for NOx, CO, VOC, SO2, TSP, PM-10, PM-2.5, and Ammonia emission limits in OSS and OS1. However, since that turbine was removed and repaired offsite, this requirement will be retained and initial stack testing will be required to be performed again when the turbine is reinstalled at the facility.
12) Round all permit limits to 3 significant digits, pursuant to current DEP policy.
13) Update permit language throughout the permit to reflect current Department approved language and to reflect any changes to applicable requirements.

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.

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.

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]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	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)]	None.	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)].	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. 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. 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]
14	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]	None.	None.	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)]
15	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]	Other: Comply with 40 CFR 68. [40 CFR 68].	Other: Comply with 40 CFR 68. [40 CFR 68].	Other (provide description): Other. Comply with 40 CFR 68 as described in the Applicable Requirement. [40 CFR 68]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	The Department and its authorized representatives shall have the right to enter and inspect any activity 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]	None.	None.	None.
17	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]	None.	None.	None.
18	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 any downtime associated with the replacement, modification, change or repair of the CEMS or COMS. [N.J.A.C. 7:27-22.18(j)]	None.	None.	Comply with the requirement: Upon occurrence of event. The permittee is responsible for contacting the Emission Measurement Section to determine the need for recertification and/or to initiate the recertification process. [N.J.A.C. 7:27-22.18(j)]
19	Each process monitor must be operated at all times when the associated process equipment is operating except during service outage time not to exceed 24 hours per calendar quarter. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee must keep a service log to document any outage. [N.J.A.C. 7:27-22.16(o)]	None.
20	Continuous recording for process monitors must be at a sufficient frequency and resolution to be able to document compliance or non-compliance in accordance with Technical Manual 1005 for CEMS (TM1005(B)(3). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

FC

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Stack testing after permit expiration: If an operating permit has expired, the conditions of the operating permit, including the requirements for stack testing during the expired permit term, remain enforceable until the operating permit is reissued. [N.J.A.C. 7:27-22.30(j)] and [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS3 Parts cleaner (Cleaning Solution <5% VOCs, HAPs, or VOCs and HAPs)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The permittee shall use a tightly fitting working-mode cover that completely covers the machine's opening and that shall be kept closed at all times except when parts are being placed into or being removed from the machine or when solvent is being added or removed. [N.J.A.C. 7:27-16.6(j)1]	Monitored by visual determination upon occurrence of event. Monitoring shall occur for each period of inactive use of the machine. [N.J.A.C. 7:27-22.16(a)]	None.	None.
2	The owner or operator of a cold cleaning machine or a heated cleaning machine shall maintain, for not less than two years after the date of purchase of solvent, the information pertaining to the solvent as specified in N.J.A.C. 7:27-16.6(j)4i through 4v, and shall, upon the request of the Department, provide the information to the Department. [N.J.A.C. 7:27-16.6(j)4]	None.	None.	None.
3	Solvent must contain less than 5% by weight of any combination of methylene chloride, perchloroethylene, 1,1,1-trichloroethane, carbon tetrachloride and chloroform. [40 CFR 63.Subpart(T)]	Other: At the time of filling, confirm by MSDS or bill of lading.[40 CFR 63.Subpart(T)].	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR10 N.J.A.C. 7:27C (RGGI Requirements for SC Turbine in U1)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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: 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; 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; 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)]	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)]	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]	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: i. For a unit that commences commercial operation before December 17, 2018, the calendar quarter beginning January 1, 2020; or 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. 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. 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. 7:27C-8.5(c)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	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. 7:27C-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. 7:27C-1.4(f), beyond the applicable percent limitations at N.J.A.C. 7:27C-6.9(a)3. [N.J.A.C. 7:27C- 1.4(k)]	Other: The Permittee shall review any transactions recorded in its COATS account for accuracy.[N.J.A.C. 7:27-22.16(o)].	None.	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 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)]
3	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: 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)]	Other: The Permittee shall review any transactions recorded in its COATS account for accuracy.[N.J.A.C. 7:27-22.16(o)].	None.	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)]

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.

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.	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: - 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. [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]	None.

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.	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): 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: 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]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	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]	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)] 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)].	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)]	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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	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)]	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)].	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)]	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)]
9	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]	None.	None.	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]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	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)]	None.	None.	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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	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)] 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)] 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)]	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)].	None.	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)]
12	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)]	None.	None.	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]

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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR11 N.J.A.C. 7:27F (PACT Requirements for SC Turbine in U1)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	CO2 <= 1,700 lb/MW-hr. From June 1, 2024 thru May 31, 2027, any existing electrical generating unit (EGU) with a nameplate capacity equal to or greater than 25 MWe shall emit no more than 1,700 pounds of CO2 per MWh gross energy output. Compliance is demonstrated when the CO2 emission rate, determined using procedures in 40 CFR 60.5540(a)(1) through (7), for the initial and each subsequent 12-operating-month rolling average compliance period, is less than or equal to the applicable CO2 emission standard (above). [N.J.A.C. 7:27F-2.5(d)1]	CO2: Monitored by calculations each month during operation, based on a 12-operating-month rolling average. The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output -based emission limit for CO2 by using the procedures in 40 CFR 60.5540(a)(1) through (7) to calculate the CO2 mass emissions. The hourly CO2 mass emissions must be calculated from the fuel use, according to 60.5535(c)(1) through (3) and the generating load must be measured in accordance with 60.5535(d). The calculations shall only be performed for "valid operating hours", as defined in 40 CFR 60.5540(a)(1). [N.J.A.C. 7:27F-2.6(c)]	CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output -based emission limit for CO2 by maintaining records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) and 40 CFR 60.5560, in a form suitable and readily available for expeditious review. [N.J.A.C. 7:27F-2.6(d)]	None.
2	CO2 <= 1,300 lb/MW-hr. From June 1, 2027 thru May 31, 2035, any existing electrical generating unit (EGU) with a nameplate capacity equal to or greater than 25 MWe shall emit no more than 1,300 pounds of CO2 per MWh gross energy output. Compliance is demonstrated when the CO2 emission rate, determined using procedures in 40 CFR 60.5540(a)(1) through (7), for the initial and each subsequent 12-operating-month rolling average compliance period, is less than or equal to the applicable CO2 emission standard (above). [N.J.A.C. 7:27F-2.5(d)2]	CO2: Monitored by calculations each month during operation, based on a 12-operating-month rolling average. The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output -based emission limit for CO2 by using the procedures in 40 CFR 60.5540(a)(1) through (7) to calculate the CO2 mass emissions. The hourly CO2 mass emissions must be calculated from the fuel use, according to 60.5535(c)(1) through (3) and the generating load must be measured in accordance with 60.5535(d). The calculations shall only be performed for "valid operating hours", as defined in 40 CFR 60.5540(a)(1). [N.J.A.C. 7:27F-2.6(c)]	CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output -based emission limit for CO2 by maintaining records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) and 40 CFR 60.5560, in a form suitable and readily available for expeditious review. [N.J.A.C. 7:27F-2.6(d)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	CO2 <= 1,000 lb/MW-hr. On and after June 1, 2035, any existing electrical generating unit (EGU) with a nameplate capacity equal to or greater than 25 MWe shall emit no more than 1,000 pounds of CO2 per MWh gross energy output. Compliance is demonstrated when the CO2 emission rate, determined using procedures in 40 CFR 60.5540(a)(1) through (7), for the initial and each subsequent 12-operating-month rolling average compliance period, is less than or equal to the applicable CO2 emission standard (above). [N.J.A.C. 7:27F-2.5(d)3]	CO2: Monitored by calculations each month during operation, based on a 12-operating-month rolling average. The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output -based emission limit for CO2 by using the procedures in 40 CFR 60.5540(a)(1) through (7) to calculate the CO2 mass emissions. The hourly CO2 mass emissions must be calculated from the fuel use, according to 60.5535(c)(1) through (3) and the generating load must be measured in accordance with 60.5535(d). The calculations shall only be performed for "valid operating hours", as defined in 40 CFR 60.5540(a)(1). [N.J.A.C. 7:27F-2.6(c)]	CO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output -based emission limit for CO2 by maintaining records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) and 40 CFR 60.5560, in a form suitable and readily available for expeditious review. [N.J.A.C. 7:27F-2.6(d)]	None.
4	CO2 Mass Emissions: The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output -based emission limit for CO2. Calculations of the hourly CO2 (tons/h) and EGU operating times must be done in accordance with 40 CFR 60.5535(c)(1) through (3). Pursuant to 40 CFR 60.5535(c), the owner or operator must implement the applicable procedures in appendix D to 40 CFR 75 to determine hourly EGU heat input rates (MMBtu/h), based on hourly measurements of fuel flow rate and periodic determinations of the gross calorific value (GCV) of each fuel combusted. For each measured hourly heat input rate, use equation G-4 in appendix G to 40 CFR 75 to calculate the hourly CO2 mass emission rate (tons/h). [N.J.A.C. 7:27F-2.6(c)]	Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27F-2.6(c)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output - based emission limit for CO2. The hourly CO2 (tons/h) and EGU (or stack) operating times used to calculate CO2 mass emissions are required to be recorded under 40 CFR 75.57(e). These data must be used to calculate the hourly CO2 mass emissions. [N.J.A.C. 7:27F-2.6(d)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Electrical Output: The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output - based emission limit for CO2. Pursuant to 40 CFR 60.5535 (d), the owner or operator must install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output. These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20. [N.J.A.C. 7:27F-2.6(c)]	Other: Monitored by watt meter continuously (See Applicable Requirement). Consistent with 40 CFR 60.5535(e) and 40 CFR 60.5520, if two or more affected EGUs serve a common electric generator, the owner or operator must apportion the combined hourly gross or net energy output to the individual affected EGUs according to the fraction of the total steam load contributed by each EGU. Alternatively, if the EGUs are identical, the owner or operator may apportion the combined hourly gross or net electric load to the individual EGUs according to the fraction of the total heat input contributed by each EGU.[N.J.A.C. 7:27F-2.6(c)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output -based emission limit for CO2 by maintaining records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) and 40 CFR 60.5560, in a form suitable and readily available for expeditious review. [N.J.A.C. 7:27F-2.6(d)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Subject Item: CD1 Selective Catalytic Reduction for Unit No. 1

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	NOx Control Efficiency >= 90 % (design efficiency). The Selective Catalytic Reduction system (SCR) 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 in this permit, are met. [N.J.A.C. 7:27-21.16(a)]	NOx Control Efficiency: Monitored by documentation of construction upon request of the Department. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain SCR system manufacturer's documentation, specifications, and operation & maintenance manual (O&M) on-site.[N.J.A.C. 7:27-22.16(o)].	None.
2	The SCR (CD1) 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 (CD1) >= 550 degrees Fahrenheit, except during periods of start-up and shut down as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	Monitored by temperature 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)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	The SCR (CD1) catalyst array(s) shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer, based on NOx emission levels indicated through CEMS / Stack Testing. [N.J.A.C. 7:27-22.16(o)]	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 mannual 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Subject Item: CD2 Oxidation Catalyst for Unit No. 1

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Destruction and Removal Efficiency >= 90 % (design value) for CO. The Catalytic Oxidizer (CD2) 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. [N.J.A.C. 7:27-22.16(a)]	Destruction and Removal Efficiency: Monitored by documentation of construction upon request of the Department. [N.J.A.C. 7:27-22.16(o)]	Destruction and Removal Efficiency: Recordkeeping by ittee shall maintain Catalytic Oxidizer system manufacturer's documentation, specifications, and operation & maintenance manual (O&M) on-site.[N.J.A.C. 7:27-22.16(o)].	None.
2	The Catalytic Oxidizer (CD2) shall be in place at all times that the turbine is operating, 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 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 >= 550 and Temperature at Exit of Catalyst <= 825 degrees F , except during periods of start-up and shut down as defined in this permit. This Applicable Requirement applies to the Catalytic Oxidizer (CD2) catalyst. [N.J.A.C. 7:27-22.16(a)]	Temperature at Exit of Catalyst: Monitored by temperature 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)]	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 (CD2) catalyst array(s) shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer, based on usage rates and CO emission levels indicated through CEMS / Stack Testing. [N.J.A.C. 7:27-22.16(o)]	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 mannual 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Subject Item: CD3 Water Injection

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The permittee shall operate and maintain the Water Injection System, as per manufacturer's requirements, during all periods of operation, except during 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 Water Injection System 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 Water Injection System. 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 the Water Injection System manufacturer's specifications, and operation and maintenance manual on-site. [N.J.A.C. 7:27-22.16(o)]	None.
2	Water-to-Fuel Ratio: The water-to-fuel ratio shall be within the manufacturer's recommended limits. [N.J.A.C. 7:27-22.16(a)]	Water-to-Fuel Ratio: Monitored by water-to-fuel monitoring device 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)]	Water-to-Fuel Ratio: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 60 Subpart A 40 CFR 60 Subpart KKKK 40 CFR 60 Subpart TTTT 40 CFR 72 - Phase II Acid Rain 40 CFR 97 - CSAPR [None]	None.	None.	None.
2	INITIAL STACK TEST The permittee shall conduct a stack test using a protocol approved by the Department to demonstrate compliance with emission limits for VOC as specified in the compliance plan for OS Summary and NOx, CO, VOC, SO2, TSP, PM-10, PM-2.5 and Ammonia as specified in the compliance plan for OS1. The permittee shall provide EMS with the turbine load performance curve with the protocol. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]	Other: The stack test must be conducted either within 180 days after initial startup of the reinstalled turbine or within 60 days of approval of a timely submitted protocol, whichever comes later. Pursuant to N.J.A.C. 7:27-16.23(c) and 19.15(c), the initial stack test to demonstrate compliance with VOC/NOx RACT standards shall be conducted within 180 days from the date on which the reinstalled turbine commences operation. 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 the permit limit for CO, whichever is more stringent, is also met. [N.J.A.C. 7:27-22.18] and[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	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 within 60 days from the date of the approved initial (or modified) 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: https://www.epa.gov/chief. 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. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	STACK TEST FOR NOx and CO 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 and CO as specified in the compliance plan for OS1 unless the turbine is eligible for and complying with one of the alternative monitoring requirements listed below. The permittee shall provide EMS with the turbine load performance curve with the protocol. If complying with the "Periodic Emission Monitoring Alternative for Peaking Units" and the average capacity factor of the unit exceeds 10% over the previous 3 calendar years or the annual capacity factor in any of those calendar years exceeds 20%, the permittee shall: 1) Within 60 days of the exceedance, submit a stack test protocol to EMS; and 2) Within 180 days of the exceedance, conduct a stack test pursuant to the above requirements. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. Alternative Monitoring Requirements in OS Summary: 1) "Periodic Emission Monitoring Alternative for Peaking Units" 2) "CEMS Alternative to Stack Test for NOx and CO" [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). 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 the permit limit for CO, whichever is more stringent, is also met. PERMITTEES OPERATING AFTER EXPIRATION DATE OF THE OPERATING PERMIT SHALL FOLLOW THE STACK TESTING SCHEDULE SPECIFIED IN THE REF #4 LINE ITEM BELOW.[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	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 (or within 60 days of a capacity factor exceedance, as applicable). 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. 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. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	STACK TESTING SCHEDULE FOR EXPIRED PERMIT (NOx and CO): If an operating permit has expired, the permittee shall conduct a stack test no later than 42 months after the date of expiration of the operating permit using an approved protocol to demonstrate compliance with emission limits for NOx and CO as specified in the compliance plan for OS1 unless the turbine is eligible for, and complying with, one of the alternative monitoring requirements listed below. The permittee shall provide EMS with the turbine load performance curve with the protocol. If complying with the "Periodic Emission Monitoring Alternative for Peaking Units" and the average capacity factor of the unit exceeds 10% over the previous 3 calendar years or the annual capacity factor in any of those calendar years exceeds 20%, the permittee shall: 1) Within 60 days of the exceedance, submit a stack test protocol to EMS; and 2) Within 180 days of the exceedance, conduct a stack test pursuant to the above requirements. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. Alternative Monitoring Requirements in OS Summary: 1) "Periodic Emission Monitoring Alternative for Peaking Units" 2) "CEMS Alternative to Renewal Stack Test for NOx and CO" [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). 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 the permit limit for CO, whichever is more stringent, is also met.[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. If an operating permit has expired, the permittee shall submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 30 months after the date of expiration of the operating permit (or within 60 days of a capacity factor excedence, as applicable). 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: https://www.epa.gov/chief. 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. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	STACK TEST FOR PM-10 and PM-2.5 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 PM-10 and PM-2.5 as specified in the compliance plan for OS1. The permittee shall provide EMS with the turbine load performance curve with the protocol. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Monitoring as required under the applicable operating scenario(s). PERMITTEES OPERATING AFTER EXPIRATION DATE OF THE OPERATING PERMIT SHALL FOLLOW THE STACK TESTING SCHEDULE SPECIFIED IN THE REF.#6 LINE ITEM BELOW.[N.J.A.C. 7:27-22.16(o)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	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. 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. 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)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	STACK TESTING SCHEDULE FOR EXPIRED PERMIT (PM-10 and PM-2.5): If an operating permit has expired, the permittee shall conduct a stack test no later than 42 months after the date of expiration of the operating permit using an approved protocol to demonstrate compliance with emission limits for PM-10 and PM-2.5 as specified in the compliance plan for OS1. The permittee shall provide EMS with the turbine load performance curve with the protocol. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. If an operating permit has expired, the permittee shall submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 30 months after the date of expiration of the 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: https://www.epa.gov/chief. 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. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Periodic Emission Monitoring Alternative for Peaking Units: If the turbine is operated as a "Peaking Unit" as defined by the Acid Rain program of USEPA, at 40 CFR 72.2 (the average capacity factor of the unit does not exceed 10% over the previous 3 caledar years and annual capacity factor does not exceed 20% in each of those calendar years), periodic emission monitoring of NOx and CO shall be permitted in lieu of "STACK TEST FOR NOx and CO" above. Periodic emission testing shall be performed annually on the turbine using a periodic emission monitoring device to measure the concentrations of NOx, CO and O2, in accordance with Technical Manual 1005, unless the unit qualifies for the exemption listed below. Exemption: Any turbine that is equipped with a CEMS unit which continuously monitors NOx, CO and O2, during all operation of the turbine, need not perform the annual periodic emission monitoring described above. ***NOTE*** Periodic emission monitoring shall only be allowed as an alternative to stack emission testing once initial stack emission testing has been performed and compliance has been demonstrated with all of the permit emission limits. [N.J.A.C. 7:27-22.16(a)]	Monitored by periodic emission monitoring annually of NOx, CO and O2; or continuous emission monitoring of NOx, CO and O2. Periodic emission monitoring for NOx, CO and O2 shall be consistent with the requirements specified in NJDEP Technical Manual 1005 posted on AQPP webpage at http://www.state.nj.us/dep/aqpp. The permittee shall use reference method or site specific method testing provided in the Technical Manual 1005 as part of any periodic monitoring procedure. [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. [N.J.A.C. 7:27-22.16(o)]	Submit a report: Annually. The permittee shall notify Enforcement at least 24 hours prior to performing periodic emission testing. Periodic emission testing for NOx, CO and O2 shall be performed annually in accordance with Technical Manual 1005 or by another method/procedure approved by EMS. Test reports shall be submitted to Chief, REO within 45 days following the end of each calendar year (starting with 2014) in the approved format to identify the facility name, emission unit, test date, and total operating hours for that year. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist If the turbine is equipped with a CEMS unit, which continuously monitors NOx, CO and O2 during turbine operation, annual periodic monitoring is not required and therefore no periodic emission report is required to be submitted to the Department. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	CEMS Alternative to Stack Test for NOx and CO: 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 for stack testing (See "STACK TEST FOR NOx and CO" in OS Summary). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain certification of CEMS and obtain approval to use CEMS data to satisfy the stack testing requirements for NOx and CO from EMS through stack test protocol approval.[N.J.A.C. 7:27-22.16(o)].	None.
9	CONTINUOUS EMMISSION MONITORING (CEMS): (NOx, CO): The Permittee shall operate CEMS according to the approved certification and in compliance with daily, quarterly, and annual quality assurance requirements. The CEMS shall include continuous monitoring of all necessary parameters (e.g. oxygen, moisture, temperature, flow rate) to allow the required corrections to be applied to demonstrate compliance with the emission limits as specified in the compliance plan for OS Summary, OS1, OS2, OS3, and OS4. 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)]	None.	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)].	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. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	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)]	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)].	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)].	None.
11	CONTINUOUS PROCESS MONITORING: (Ammonia) The Permittee shall operate, calibrate and maintain the continuous process monitor and continuous process data recorder. The continuous process monitor shall include continuous monitoring of all necessary parameters (e.g. oxygen, moisture, temperature, flow rate) to allow the required corrections to be applied to demonstrate compliance with the emission limits for Ammonia as specified in the compliance plan for OS Summary, OS1, OS2, OS3, and OS4. Emissions shall be monitored during all operation of the turbine. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].	None.
12	CO <= 250 ppmvd @ 15% O2. VOC RACT rule emission limit applies during all operation of the combustion turbine. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	VOC (Total) <= 50 ppmvd @ 15% O2. VOC RACT rule emission limit applies during all operation of the combustion turbine. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-16.23(a)2]	VOC (Total): Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	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 adjust the combustion process in accordance with the procedure set forth at N.J.A.C. 7:27-19.16(g) and in accordance with the manufacturer's recommended procedures and maintenance schedules for those sources. [N.J.A.C 7:27-22.16(a)], [N.J.A.C. 7:27-16.9(f)] and [N.J.A.C. 7:27-19.5(e)]	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. [N.J.A.C. 7:27-19.16(g)].	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: 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 since the last combustion adjustment was performed. The records shall be kept for a minimum of 5 years and be readily accessible to the Department upon request. . [N.J.A.C. 7:27-19.16(h)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	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.
16	Maximum Annual Gross Heat Input <=2,072,651 MMBtu (HHV) per any 365 consecutive day period. Based on a net electric sales limit of 213,209 MWhr/yr (pursuant to NSPS Subpart TTTT), a heat rate of 8712 Btu/KWhr, 750 turbine start-ups with 3 minutes each of non-electric generating operation and 700 shut downs with 5 minutes each of non-electric generating operation. Pursuant to 40 CFR Part 52.21(r)(4), any relaxation of the maximum annual gross heat input limit for this 64 MW simple-cycle turbine will be reviewed for PSD applicability as though construction had not yet commenced on the unit. [N.J.A.C. 7:27-22.16(a)]	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 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. Maintain a record of the gross heat input, in Btu, each day. Annual Gross Heat Input shall be calculated daily by adding the total gross heat input from the current day to the total gross heat input from the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Natural Gas Usage <= 2,032 MMft^3 per any 365 consecutive day period. Based on permitted annual heat input limit (2,072,651 MMBtu/hr) and a natural gas heating value of 1020 MMBtu/MMScf. Pursuant to 40 CFR Part 52.21(r)(4), any relaxation of the maximum annual gross heat input limit for this 64 MW simple-cycle turbine will be reviewed for PSD applicability as though construction had not yet commenced on the unit. [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 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. Maintain a record of the fuel use, in CUFT, each day. Annual Natural Gas Usage shall be calculated daily by adding the total natural gas usage from the current day to the total natural gas usage from the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
18	The permittee shall operate and maintain the Low NOx Combustor System, 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 Low NOx Combuster System 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 Low NOx Combustor System. 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 the Low NOx Combustor System manufacturer's specifications, and operation and maintenance manual on-site. [N.J.A.C. 7:27-22.16(o)]	None.
19	Sulfur Content in Fuel <= 0.00634 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. [N.J.A.C. 7:27-22.16(o)]	upon request by the Department or USEPA Submit a report: Other. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	NOx (Total) <= 21.3 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr), a lb/MMBtu value equivalent to the 2.5 ppm SOTA limit (0.00921 lb/MMBtu), 8.95 tpy of excess emissions from 750 start-ups and 2.76 tpy of excess emissions from 700 shut downs. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a consecutive 12 month period (rolling 1 month basis). See "CONTINUOUS EMISSION MONITORING (CEMS)" in OS Summary. Each month, an annual emission rate shall be calculated by adding the total emissions from the current month to the total emissions from the 11 immediately preceding calendar months. [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 (CEMS)" in OS Summary. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.
21	CO <= 13.6 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr), a lb/MMBtu value equivalent to the 5.0 ppm SOTA limit (0.0112 lb/MMBtu) and 1.93 tpy of excess emissions from 750 start-ups. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a consecutive 12 month period (rolling 1 month basis). See "CONTINUOUS EMISSION MONITORING (CEMS)" in OS Summary. Each month, an annual emission rate shall be calculated by adding the total emissions from the current month to the total emissions from the 11 immediately preceding calendar months. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING (CEMS)" in OS Summary. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	VOC (Total) <= 3.95 tons/yr. This limit includes formaldehyde emissions. Based on permitted annual heat input limit (2,072,651 MMBtu/yr), a lb/MMBtu value equivalent to the 2.55 ppm permit limit (0.00327 lb/MMBtu) and 0.56 tpy of excess emissions from 750 start-ups. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations each month during operation , based on a consecutive 12 month period (rolling 1 month basis). Calculate using the following equations: VOC tons/year = VOC tons/month for a given month + VOC tons/month for the immediately preceding 11 months. VOC tons/month = [{X (lb/MMBtu) x CT HI (MMBtu/month)} + {1.50 (lb/start) x SU (starts/month)}] / 2000 (lb/ton) Where: X = the average lb/MMBtu emission rate, for the turbine, determined by the most recent stack test. CT HI = total heat input to the combustion turbine (CT) during the month, calculated by the CEMS, based on measured gas consumption and a heating value determined by the most recent monthly gas sample analysis. SU = total number of start-ups which occurred during the month. [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. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	SO2 <= 1.16 tons/yr. Based on combustion of 2,032 MMScf/yr of natural gas, a natural gas heating value of 1020 MMBtu/MMScf and maximum rolling 12 month average value of sulfur content in Transco's natural gas, measured during 2009 - 2011 monthly samples (0.4 grains/100dscf). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations each month during operation , based on a consecutive 12 month period (rolling 1 month basis). Calculate using the following equations: SO2 tons/year = SO2 tons/month for a given month + SO2 tons/month for the immediately preceding 11 months. SO2 tons/month = {[CTGas (MMscf/month) x 1,000,000 (Scf/MMScf)] x [X (ppmv)] / [1,000,000 (Scf/MMScf) x 32.06 (lb/lb mol S) / 385.4 (scf/lb mol S) / 2,000 (lb/ton)] x [64.06 (lb/lb mol SO2) / 32.06 (lb/lb mol S)]} Where: X = the average concentration of sulfur in the natural gas that was combusted. CTGas = total MMScf of gas consumed by the combustion turbine (CT) during the month, including fuel consumed during start-up and shut down. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	TSP <= 9.15 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr) and a lb/MMBtu value equivalent to the 5 lb/hr permit limit (0.00883 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations each month during operation , based on a consecutive 12 month period (rolling 1 month basis). Calculate using the following equations: TSP tons/year = TSP tons/month for a given month + TSP tons/month for the immediately preceding 11 months. TSP tons/month = [X (lb/MMBtu) x CT HI (MMBtu/month)] / 2000 (lb/ton) Where: X = the average lb/MMBtu emission rate, for the turbine, determined by the most recent stack test. CT HI = total heat input to the combustion turbine (CT) during the month, calculated by the CEMS, based on measured gas consumption and a heating value determined by the most recent monthly gas sample analysis. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	PM-10 (Total) <= 9.15 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr) and a lb/MMBtu value equivalent to the 5 lb/hr permit limit (0.00883 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations each month during operation , based on a consecutive 12 month period (rolling 1 month basis). Calculate using the following equations: PM-10 tons/year = PM-10 tons/month for a given month + PM-10 tons/month for the immediately preceding 11 months. PM-10 tons/month = [X (lb/MMBtu) x CT HI (MMBtu/month)] / 2000 (lb/ton) Where: X = the average lb/MMBtu emission rate, for the turbine, determined by the most recent stack test. CT HI = total heat input to the combustion turbine (CT) during the month, calculated by the CEMS, based on measured gas consumption and a heating value determined by the most recent monthly gas sample analysis. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	PM-2.5 (Total) <= 9.15 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr) and a lb/MMBtu value equivalent to the 5 lb/hr permit limit (0.00883 lb/MMBtu). [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). Calculate using the following equations: PM-2.5 tons/year = PM-2.5 tons/month for a given month + PM-2.5 tons/month for the immediately preceding 11 months. PM-2.5 tons/month = [X (lb/MMBtu) x CT HI (MMBtu/month)] / 2000 (lb/ton) Where: X = the average lb/MMBtu emission rate, for the turbine, determined by the most recent stack test. CT HI = total heat input to the combustion turbine (CT) during the month, calculated by the CEMS, based on measured gas consumption and a heating value determined by the most recent monthly gas sample analysis. [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. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.
27	Ammonia <= 7.05 tons/yr. Based on permitted annual heat input limit (2,072,651 MMBtu/yr) and a lb/MMBtu value equivalent to the 5.0 ppm SOTA limit (0.00681 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by a continuous process monitoring system, continuously, based on a consecutive 12 month period (rolling 1 month basis). See "CONTINUOUS PROCESS MONITORING" in OS Summary. Each month, an annual emission rate shall be calculated by adding the total emissions from the current month to the total emissions from the 11 immediately preceding calendar months.[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. Monthly totals of emissions from the most recent 12 consecutive calendar months shall be maintained in a logbook or computer data system. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	Methane <= 3.01 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up and shutdown emissions based on AP-42, Table 3.1-2a emission factor and steady state operation based on 40 CFR Part 98, Subpart C, Table C-2 emission factor. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
29	Nitrous oxide <= 0.501 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up and shutdown emissions based on AP-42, Table 3.1-2a emission factor and steady state operation based on 40 CFR Part 98, Subpart C, Table C-2 emission factor. [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
30	HAPs (Total) <= 2.92 tons/yr. Based on the sum of all reportable HAPS emission limits. [N.J.A.C. 7:27-21.16(a)]	HAPs (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
31	Acetaldehyde <= 0.655 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	Acetophenone <= 0.0678 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Acetophenone: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetophenone: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
33	Acrolein <= 0.0889 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
34	Arsenic Emissions <= 0.00022 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions = Shutdown emissions = steady state emissions. Steady state emissions based on AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
35	Benzene <= 0.505 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from Electric Power Research Institute Technical Update (February 2006). [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
36	Benzo (A) Pyrene Emissions <= 0.000119 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Benzo (A) Pyrene Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzo (A) Pyrene Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
37	Beryllium Emissions <= 0.0000132 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions = Shutdown emissions = steady state emissions. Steady state emissions based on AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Beryllium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Beryllium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
38	Biphenyl <= 0.0126 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Biphenyl: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Biphenyl: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
39	Cadmium Emissions <= 0.00121 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions = Shutdown emissions = steady state emissions. Steady state emissions based on AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
40	Chromium (Hexavalent) Emissions <= 0.00188 tons/yr. Based on permitted annual heat input limit and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Chromium (Hexavalent) Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Chromium (Hexavalent) Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
41	Cobalt Emissions <= 0.000114 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions = Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
42	Ethylbenzene <= 0.0731 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
43	Formaldehyde <= 1.33 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up and shutdown emissions based on California Air Toxics emission factor. Steady state emissions based on AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
44	Manganese Emissions <= 0.000627 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions = Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Manganese Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Manganese Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
45	Naphthalene <= 0.0101 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
46	Nickel Emissions <= 0.00231 tons/yr. Based on permitted annual heat input limit and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
47	Polynuclear aromatic hydrocarbons (PAHs) <= 0.0103 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	Propylene oxide <= 0.0753 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
49	Styrene <= 0.0784 tons/yr. Based on 750 start-ups, 700 shut downs and steady state operation during remainder of permitted annual heat input. Start-up emissions based on ratio of VOC start-up emissions / VOC steady station emissions. Shutdown emissions = steady state emissions. Steady state emissions based on emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Styrene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Styrene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
50	Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-17. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
51	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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
52	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the Southern Regional Enforcement Office of NJDEP at: One Port Center 2 Riverside Drive, Suite 201 Camden, NJ 08103 [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)]
53	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)]
54	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 actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]	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)(3)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
55	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)]	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)(4)]
56	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)]	None.	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)]	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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
57	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)]	None.	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)].	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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
58	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.
59	Within 60 days after achieving the maximum production rate at which the affected facility will operate, but not later than 180 days after initial startup of the facility, the owner or operator shall conduct performance test(s) and shall furnish the Administrator a written report of the results. [40 CFR 60.8(a)]	None.	None.	Submit a report: At a common schedule agreed upon by the operator and the Administrator. The owner or operator shall submit results of the performance test(s) to the Administrator. [40 CFR 60.8(a)]
60	The owner or operator shall conduct performance tests and reduce data in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. [40 CFR 60.8(b)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
61	Performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of the performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]	None.	None.	None.
62	The owner or operator shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts or otherwise allowed by the Administrator, and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e). [40 CFR 60.8(d)]	None.	None.	None.
63	Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [40 CFR 60.8(f)]	None.	None.	None.
64	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
65	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.
66	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.
67	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)]	Other: 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.[40 CFR 60.13(c)].	None.	Submit a report: As per the approved schedule 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. [40 CFR 60.13(c)(2)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
68	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.
69	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.
70	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
71	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)]	None.	Other: See Applicable Requirement. [40 CFR 60.13(h)].	None.
72	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)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
73	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.
74	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.
75	To demonstrate continuous compliance with NOx limit, the owner or operator of a turbine that uses steam or water injection may, as alternative to operating the continuous monitoring system described in 40 CFR 60.4335(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. [40 CFR 60.4335(b)(1)]	Monitored by continuous emission monitoring system continuously. [40 CFR 60.4335(b)(1)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 60.4335(b)(1)]	None.
76	The owner or operator of a turbine that uses steam or water injection and complying with the output-based standard shall install, calibrate, maintain and operate a fuel flow meter to continuously measure the heat input to the affected unit. [40 CFR 60.4335(b)(2)]	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)]	Other: The permittee shall record time in which the data for fuel flow rate are either missing or invalid. [40 CFR 60.4380(b)(2)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
77	The owner or operator of a turbine that uses steam or water injection and complying with the output-based standard shall install, calibrate, maintain and operate a watt meter to continuously measure the gross electrical output of the affected unit in megawatt-hours. [40 CFR 60.4335(b)(3)]	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)]	None.	None.
78	40 CFR 60.4345(a) Compliance Option 1: 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. *** Pursuant to 40 CFR 60.4345(a), the permittee may choose to comply with this Ref or with the "40 CFR 60.4345(a) Compliance Option 2" below *** [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.
79	40 CFR 60.4345(a) Compliance Option 2: 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. *** Pursuant to 40 CFR 60.4345(a), the permittee may choose to comply with this Ref or with the "40 CFR 60.4345(a) Compliance Option 1" above *** [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
80	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.
81	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.
82	The owner or operator shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.4415 or, alternatively, as allowed in 40 CFR 60.4360. The analyses may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]	Other: The owner or operator may develop custom schedule for determination of the total sulfur content of gaseous fuels. The custom schedule shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the Sulfur standard in fuel except for the two custom schedules set forth in 40 CFR 60.4370(c)(1)(i) through (iv) and in 40 CFR 60.4370(c)(2) which are acceptable without prior Administrator approval.[40 CFR 60.4370(c)].	Recordkeeping by certified lab analysis results at the approved frequency. The owner or operator shall record the results of each analysis for fuel sulfur content. [40 CFR 60.4415]	Submit a report: As per the approved schedule. The permittee shall determine excess emissions and monitoring downtime as described in 40 CFR 60.4385(a) through (c) and submit an excess emissions report by the 30th day following the end of each 6-month period as prescribed in 40 CFR 60.4395. [40 CFR 60.4385]
83	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 SO2/MMBtu heat input for units located in continental areas. [40 CFR 60.4365]	Monitored by grab sampling at the approved frequency. The required demonstration that the total sulfur content of the fuel does not exceed potential sulfur emissions of 0.060 lb SO2/MMBtu shall be made using representative fuel sampling. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required. [40 CFR 60.4365(b)]	Recordkeeping by certified lab analysis results at the approved frequency. The owner or operator shall record the results of each analysis for fuel sulfur content. [40 CFR 60.4365(b)]	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 SO2 /MMBtu heat input. [40 CFR 60.4365(b)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
84	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, 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-month period. [40 CFR 60.4395]
85	The owner or operator shall submit reports of excess emissions and monitor downtime for Sulfur content in the fuel. An excess emissions as defined in 40 CFR 60.4385(a) and (b) occurs each unit hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrate compliance with the sulfur limit. A period of monitor downtime begins when a required sample is not taken by its due date or if a sample is taken but invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385]	None.	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-month period. [40 CFR 60.4395]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
86	Net Electric Sales <= 213,209 MWh per 12 operating-month period. Net Electric Sales, as defined in 40 CFR 60.5580, based on the unit design efficiency of 39.2%, as demonstrated through acceptance testing, a unit potential electric output, as defined in 40 CFR 60.5580, of 544,252 MWh/yr (which is based on the design efficiency (39.2%) and correlating base load rating (541.3 MMBtu/hr (LHV)). This value used to determine the applicable CO2 emission limit, pursuant to NSPS, Subpart TTTT, Table 2. [40 CFR 60.5520(a)]	None.	Recordkeeping by production records each month during operation Maintain a record of the net electric sales, in MWhr/yr, each operating month. Annual Net Electric Sales shall be calculated, on a 12-operating month average basis by adding the total net electric sales from the 12 most recent operating months. [N.J.A.C. 7:27-22.16(o)]	None.
87	CO2 <= 120 lb/MMBTU. Stationary combustion turbine constructed after January 8, 2014 that combust more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis and supply less than or equal to [(design efficiency or 50%, whichever is less) x (potential electric output, MWh)] as net-electric sales on either a 12-operating-month or a 3-year rolling average basis shall comply with the heat input-based standard of 120 lb CO2/MMBtu. [40 CFR 60.5520(d)(1)]	None.	Other: Maintain fuel purchase records in a form suitable and readily available for expeditious review. Each record must be maintained for 3 years after the date of conclusion of each compliance period. [40 CFR 60.5520(d)(1)].	None.
88	The owner or operator of any affected EGU(s) must prepare and submit to 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. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.5550(a)]	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(a). [40 CFR 60.5550(a)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
89	The owner or operator of any affected EGU(s) must prepare and submit to the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.5550(a)]	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 60.5550(a)]
90	The owner or operator of an affected EGU(s) must prepare and submit notifications specified in 40 CFR 75.61 as applicable to the affected EGU. [40 CFR 60.5550(b)]	None.	None.	Submit notification: As per the approved schedule to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 75.61. [40 CFR 60.5550(b)]
91	The owner or operator of an affected EGU that is also subject to Acid Rain Program must submit the quarterly electronic emissions reports as required under Subpart G of 40 CFR 75. [40 CFR 60.5555(c)(1)]	None.	None.	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) electronically using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA submitted by the Designated Representative (DR), the Alternate DR (ADR), or a delegated agent of the DR/ADR. The EGU must begin submitting the quarterly electronic emissions reports in accordance with 40 CFR 75.64(a), i.e., beginning with data recorded on and after the earlier of: (A) The date of provisional certification, as defined in 40 CFR 75.20(a)(3); or (B) 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2). [40 CFR 60.5555(b)]
92	The owner or operator shall comply with the applicable General Provisions in 40 CFR 60 Subpart A as listed in Table 3 in 40 CFR 60 Subpart TTTT. [40 CFR 60.5570]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
93	Acid Rain: The permittee shall comply with all of the requirements of the Phase II Acid Rain (AR) 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]
94	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]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Operating Scenario: OS1 Unit No. 1 Firing Natural Gas

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 <= 62.8 lb/hr Particulate emission limit from the combustion of natural gas based on rated heat input of 628 MMBtu/hr. [N.J.A.C. 7:27- 4.2(a)]	Particulate Emissions: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	NOx (Total) <= 1 lb/MW-hr (net). NOx RACT emission limit applies during all periods of natural gas combustion during which useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)]	NOx (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 (CEMS)" in OS Summary. [N.J.A.C. 7:27-19.15(a)1]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Turbine fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis upon request of the Department. [N.J.A.C. 7:27-22.16(o)]	None.
6	Maximum Gross Heat Input <= 628 MMBTU/hr (HHV) while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [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.
7	NOx (Total) <= 2.5 ppmvd @ 15% O2. Based on vendor guarantee / SOTA. [N.J.A.C. 7:27-22.16(a)]	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 (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
8	NOx (Total) <= 2.5 ppmvd @ 15% O2. Based on vendor guarantee / SOTA. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" 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 "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	NOx (Total) <= 5.79 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 2.5 ppm SOTA limit (0.00921 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	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 (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
10	NOx (Total) <= 5.79 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 2.5 ppm SOTA limit (0.00921 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" 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 "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	CO <= 5 ppmvd @ 15% O2. Based on vendor guarantee / SOTA. [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 (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	CO <= 5 ppmvd @ 15% O2. Based on vendor guarantee / SOTA. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" 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 "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
13	CO <= 7.04 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 5.0 ppm SOTA limit (0.0112 lb/MMBtu). [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 (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
14	CO <= 7.04 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 5.0 ppm SOTA limit (0.0112 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" 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 "INITIAL STACK TEST" and "STACK TEST FOR NOx and CO" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) <= 2.55 ppmvd @ 15% O2. This limit includes formaldehyde emissions. Based on vendor guaranteed VOC emissions plus permitted Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	VOC (Total) <= 2.06 lb/hr. This limit includes formaldehyde emissions. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 2.55 ppm permit limit (0.00327 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
17	SO2 <= 1.12 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr), a natural gas heating value of 1020 MMBtu/MMScf and the maximum value of sulfur content in Transco's natural gas, measured during 2009 - 2011 monthly samples (0.634 grains/100dscf). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
18	TSP <= 5 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
19	PM-10 (Total) <= 5 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" 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 "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
20	PM-2.5 (Total) <= 5 lb/hr. Based on PM-10 permitted emission rate. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. See "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" 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 "INITIAL STACK TEST" and "STACK TEST FOR PM-10 and PM-2.5" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
21	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
23	Ammonia <= 4.28 lb/hr. Based on permitted maximum heat input (628 MMBtu/hr) and a lb/MMBtu value equivalent to the 5.0 ppm SOTA limit (0.00681 lb/MMBtu). [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results once initially. See "INITIAL STACK TEST" 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 "INITIAL STACK TEST" in OS Summary. [N.J.A.C. 7:27-22.16(o)]
24	Methane <= 1.52 lb/hr. Based on permitted hourly heat input and 40 CFR Part 98, Subpart C, Table C-2 emission factor. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
25	Nitrous oxide <= 0.152 lb/hr. Based on permitted hourly heat input and 40 CFR Part 98, Subpart C, Table C-2 emission factor. [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
26	Acetaldehyde <= 0.341 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
27	Acetophenone <= 0.0352 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Acetophenone: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetophenone: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	Acrolein <= 0.0462 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
29	Arsenic Emissions <= 0.000133 lb/hr. Based on permitted hourly heat input and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
30	Benzene <= 0.263 lb/hr. Based on permitted hourly heat input and emission factor from Electric Power Research Institute Technical Update (February 2006). [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
31	Benzo (A) Pyrene Emissions <= 0.000062 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Benzo (A) Pyrene Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzo (A) Pyrene Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
32	Beryllium Emissions <= 0.000008 lb/hr. Based on permitted hourly heat input and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Beryllium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Beryllium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
33	Biphenyl <= 0.00656 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Biphenyl: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Biphenyl: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
34	Cadmium Emissions <= 0.000733 lb/hr. Based on permitted hourly heat input and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
35	Chromium (Hexavalent) Emissions <= 0.00114 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Chromium (Hexavalent) Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Chromium (Hexavalent) Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
36	Cobalt Emissions <= 0.0000691 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
37	Ethylbenzene <= 0.038 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
38	Formaldehyde <= 0.49 lb/hr. Based on permitted hourly heat input and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
39	Manganese Emissions <= 0.00038 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Manganese Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Manganese Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
40	Naphthalene <= 0.00525 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
41	Nickel Emissions <= 0.0014 lb/hr. Based on permitted hourly heat input and AP-42 emission factor. [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
42	Polynuclear aromatic hydrocarbons (PAHs) <= 0.00536 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
43	Propylene oxide <= 0.0391 lb/hr. Based on permitted hourly heat input and California Air Toxics emission factor. [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
44	Styrene <= 0.0408 lb/hr. Based on permitted hourly heat input and emission factor from GE Energy and Environmental Research Corp. Progress Report No. 2 (2/14/02). [N.J.A.C. 7:27-22.16(a)]	Styrene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Styrene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain initial calculations and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
45	Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-17. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
46	NOx (Total) <= 25 ppmvd @ 15% O2 OR NOx (total)<= 1.2 lb/MW-hr of useful output. This limit applies to a turbine that has heat input at peak load greater than 50 MMBtu/hr (HHV) but less or equal to 850 MMBtu/hr (HHV) firing natural gas and which commenced construction after February 18, 2005. [40 CFR 60.4320(a)]	NOx (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 NOx 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. [40 CFR 60.4400]	NOx (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)]
47	NOx (Total) <= 96 ppmvd @ 15% O2 OR NOx (total)<= 4.7 lb/MW-hr of useful output. This limit applies to a turbine that has output greater than 30 MW which is operating at less than 75 percent of peak load or at a temperature less than 0 degrees F. [40 CFR 60.4320(a)]	NOx (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 NOx 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 NOx measurements shall be taken after the duct burner, which has to be in operation during the performance test. [40 CFR 60.4400]	NOx (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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	SO2 <= 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)]	SO2: Monitored by grab sampling once initially. Test methods and procedures shall be consistent with 40 CFR 60.4415(a)(1). The fuel analyses may be performed by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]	None.	Submit a report: Once initially. The permittee shall furnish the Administrator and NJDEP a written report of the results of fuel analyses. The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO2 per MMBtu heat input. [40 CFR 60.8(a)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Operating Scenario: OS2 Unit No. 1 - Start-up

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	This operating scenario only applicable during an hour that contains a turbine start-up but no turbine shut down. [None]	None.	None.	None.
2	Start-up Period <= 20 minutes. Startup commences with initiation of the combustion of fuel in the combustion turbine and concludes when the turbine and control systems reach steady state operation, or when combustion is ceased prior to attaining steady state operation (for instance, if start-up is abandoned due to equipment malfunction). The duration of start-up shall not exceed 20 minutes. [N.J.A.C. 7:27-22.16(a)]	Start-up Period: Monitored by hour/time monitor upon occurrence of event. Duration of startup shall be measured by an automated system which tracks a "CTG In Operation" true/false signal, water injection rate, and ammonia injection rate. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall include: 1) Start-up start time; 2) Start-up end time; 3) Date; 4) Total start-up duration; and 5) Name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
3	Maximum number of startups shall not exceed 750 in any 365 day period. This includes all start-ups (OS2 and OS4). [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 each start-up event and total start-up events for the 365 day period ending on each calendar day. Total Start-ups for each calendar day shall be calculated by adding the total number of start-ups occurring during the current day to the total number of start-ups which occurred during the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
4	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Particulate Emissions <= 62.8 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of 628 MMBtu/hr (HHV) for the turbine. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
6	NOx (Total) <= 1 lb/MW-hr (net). NOx 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)]	NOx (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 (CEMS)" in OS Summary. [N.J.A.C. 7:27-19.15(a)1]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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. 7:27-22.19(d)]
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 <= 628 MMBTU/hr (HHV) while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	NOx (Total) <= 39.7 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. Based on worst case actual emissions for a normal start-up. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
10	CO <= 14.4 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. Based on worst case actual emissions for a normal start-up. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	VOC (Total) <= 4.06 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. This limit includes formaldehyde emissions. Based on worst case actual emissions for a normal start-up. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations once initially. [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 once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
12	SO2 <= 1.12 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
13	TSP <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
14	PM-10 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS2

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	PM-2.5 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [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)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
16	Ammonia <= 5 ppmvd @ 15% O2. Based on permitted emission rate for steady state operation (U1, OS1). [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.
17	Ammonia <= 4.28 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
18	Methane <= 2.62 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. Based on the average heat input during start-up and AP-42 emission factor for (1) 20-minute start-up and 40 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Nitrous oxide <= 0.663 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. Based on the average heat input during start-up and AP-42 emission factor for (1) 20-minute start-up and 40 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
20	Acetaldehyde <= 0.672 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
21	Acetophenone <= 0.0695 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Acetophenone: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetophenone: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
22	Acrolein <= 0.0912 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Arsenic Emissions <= 0.000133 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
24	Benzene <= 0.518 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
25	Benzo (A) Pyrene Emissions <= 0.000122 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Benzo (A) Pyrene Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzo (A) Pyrene Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
26	Beryllium Emissions <= 0.000008 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Beryllium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Beryllium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS2

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	Biphenyl <= 0.013 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Biphenyl: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Biphenyl: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
28	Cadmium Emissions <= 0.000733 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
29	Chromium (Hexavalent) Emissions <= 0.00114 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Chromium (Hexavalent) Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Chromium (Hexavalent) Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
30	Cobalt Emissions <= 0.0000691 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	Ethylbenzene <= 0.075 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
32	Formaldehyde <= 1.57 lb/hr. Maximum emission rate during any hour that includes a start-up event and does not include a shut down event. Based on the average heat input during start-up and California Air Toxics emission factor for (1) 20-minute start-up and 40 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
33	Manganese Emissions <= 0.00038 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Manganese Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Manganese Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
34	Naphthalene <= 0.0104 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Nickel Emissions <= 0.0014 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
36	Polynuclear aromatic hydrocarbons (PAHs) <= 0.0106 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
37	Propylene oxide <= 0.0772 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
38	Styrene <= 0.0804 lb/hr. Maximum emission rate during any hour that includes a start-up event. Based on permitted emission rate for steady state operation (U1, OS1) and ratio of (VOC start-up emission / VOC steady state emissions). [N.J.A.C. 7:27-22.16(a)]	Styrene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Styrene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS2

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-17. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Operating Scenario: OS3 Unit No. 1 - Shut Down

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	This operating scenario only applicable during an hour that contains a turbine shut down but no turbine start-up. [None]	None.	None.	None.
2	Shutdown Period <= 12 minutes. Shutdown commences with initiation of lowering turbine power output with the intent to cease generation of electrical power output and concludes with the cessation of the combustion turbine operation. The duration of shutdown shall not exceed 12 minutes. [N.J.A.C. 7:27-22.16(a)]	Shutdown Period: Monitored by hour/time monitor upon occurrence of event. Duration of shutdown shall be measured by an automated system which tracks a "CTG In Operation" true/false signal and the turbine power output. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall include: 1) Shutdown start time; 2) Shutdown end time; 3) Date; 4) Total shutdown duration; and 5) Name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
3	Maximum number of Shut Downs shall not exceed 700 in any 365 day period. This includes all shut downs (OS3 and OS4). [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 each shut down event and total shut down events for the 365 day period ending on each calendar day. Total Shut downs for each calendar day shall be calculated by adding the total number of shut downs occurring during the current day to the total number of shut downs which occurred during the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
4	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Particulate Emissions <= 62.8 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of 628 MMBtu/hr (HHV) for the turbine. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
6	NOx (Total) <= 1 lb/MW-hr (net). NOx 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)]	NOx (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 (CEMS)" in OS Summary. [N.J.A.C. 7:27-19.15(a)1]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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. 7:27-22.19(d)]
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 <= 628 MMBTU/hr (HHV) while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	NOx (Total) <= 26 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. Based on worst case actual emissions for a normal shut down. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
10	CO <= 7.04 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. Based on worst case actual emissions for a normal shut down. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	VOC (Total) <= 2.06 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. This limit includes formaldehyde emissions. Based on worst case actual emissions for a normal shut down and steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations once initially. [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 once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
12	SO2 <= 1.12 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
13	TSP <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
14	PM-10 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS3

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	PM-2.5 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [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)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
16	Ammonia <= 5 ppmvd @ 15% O2. Based on permitted emission rate for steady state operation (U1, OS1). [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.
17	Ammonia <= 4.28 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
18	Methane <= 1.78 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. Based on the average heat input during shut down and AP-42 emission factor for (1) 12-minute shut down and 48 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Nitrous oxide <= 0.32 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. Based on the average heat input during shut down and AP-42 emission factor for (1) 12-minute shut down and 48 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
20	Acetaldehyde <= 0.341 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
21	Acetophenone <= 0.0352 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acetophenone: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetophenone: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
22	Acrolein <= 0.0462 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS3

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Arsenic Emissions <= 0.000133 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
24	Benzene <= 0.263 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
25	Benzo (A) Pyrene Emissions <= 0.000062 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Benzo (A) Pyrene Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzo (A) Pyrene Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
26	Beryllium Emissions <= 0.000008 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Beryllium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Beryllium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS3

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	Biphenyl <= 0.00656 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Biphenyl: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Biphenyl: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
28	Cadmium Emissions <= 0.000733 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
29	Chromium (Hexavalent) Emissions <= 0.00114 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Chromium (Hexavalent) Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Chromium (Hexavalent) Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
30	Cobalt Emissions <= 0.0000691 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS3

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	Ethylbenzene <= 0.038 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
32	Formaldehyde <= 0.83 lb/hr. Maximum emission rate during any hour that includes a shut down event and does not include a start-up event. Based on the average heat input during shut down and California Air Toxics emission factor for (1) 12-minute shut down and 48 minutes of steady state operation (OS1). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
33	Manganese Emissions <= 0.00038 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Manganese Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Manganese Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
34	Naphthalene <= 0.00525 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Nickel Emissions <= 0.0014 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
36	Polynuclear aromatic hydrocarbons (PAHs) <= 0.00536 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
37	Propylene oxide <= 0.0391 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
38	Styrene <= 0.0408 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Styrene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Styrene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS3

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-17. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U1 Gas Turbine - Unit 1
Operating Scenario: OS4 Unit No. 1 - Start-up and Shut Down During the Same Hour

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	This operating scenario only applicable during an hour that contains a turbine start-up and a turbine shut down. [None]			
2	Start-up Period <= 20 minutes. Startup commences with initiation of the combustion of fuel in the combustion turbine and concludes when the turbine and control systems reach steady state operation, or when combustion is ceased prior to attaining steady state operation (for instance, if start-up is abandoned due to equipment malfunction). The duration of start-up shall not exceed 20 minutes. [N.J.A.C. 7:27-22.16(a)]	Start-up Period: Monitored by hour/time monitor upon occurrence of event. Duration of startup shall be measured by an automated system which tracks a "CTG In Operation" true/false signal, water injection rate, and ammonia injection rate. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall include: 1) Start-up start time; 2) Start-up end time; 3) Date; 4) Total start-up duration; and 5) Name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
3	Shutdown Period <= 12 minutes. Shutdown commences with initiation of lowering turbine power output with the intent to cease generation of electrical power output and concludes with the cessation of the combustion turbine operation. The duration of shutdown shall not exceed 12 minutes. [N.J.A.C. 7:27-22.16(a)]	Shutdown Period: Monitored by hour/time monitor upon occurrence of event. Duration of shutdown shall be measured by an automated system which tracks a "CTG In Operation" true/false signal and the turbine power output. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall include: 1) Shutdown start time; 2) Shutdown end time; 3) Date; 4) Total shutdown duration; and 5) Name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	Maximum number of startups shall not exceed 750 in any 365 day period. This includes all start-ups (OS2 and OS4). [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 each start-up event and total start-up events for the 365 day period ending on each calendar day. Total Start-ups for each calendar day shall be calculated by adding the total number of start-ups occurring during the current day to the total number of start-ups which occurred during the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
5	Maximum number of Shut Downs shall not exceed 700 in any 365 day period. This includes all shut downs (OS3 and OS4). [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 each shut down event and total shut down events for the 365 day period ending on each calendar day. Total Shut downs for each calendar day shall be calculated by adding the total number of shut downs occurring during the current day to the total number of shut downs which occurred during the immediately preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
6	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.
7	Particulate Emissions <= 62.8 lb/hr. Particulate emission limit from the combustion of natural gas based on rated heat input of 628 MMBtu/hr (HHV) for the turbine. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NOx (Total) <= 1 lb/MW-hr (net). NOx 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)]	NOx (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 (CEMS)" in OS Summary. [N.J.A.C. 7:27-19.15(a)1]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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. 7:27-22.19(d)]
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.
10	Maximum Gross Heat Input <= 628 MMBTU/hr (HHV) while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [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) <= 57 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on worst case actual emissions for a normal start-up and a normal shut down. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	CO <= 14.4 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on worst case actual emissions for a normal start-up and a normal shut down. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. See "CONTINUOUS EMISSION MONITORING (CEMS)" 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 (CEMS)" 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. 7:27-22.19(d)]
13	VOC (Total) <= 4.06 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. This limit includes formaldehyde emissions. Based on worst case actual emissions for a normal start-up and a normal shut down. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations once initially. [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 once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
14	SO2 <= 1.12 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	TSP <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
16	PM-10 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
17	PM-2.5 (Total) <= 5 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [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)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
18	Ammonia <= 5 ppmvd @ 15% O2. Based on permitted emission rate for steady state operation (U1, OS1). [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Ammonia <= 4.28 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
20	Methane <= 2.89 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on the average heat input during start-up and AP-42 emission factor for (1) 20-minute start-up, the average heat input during shut down and AP-42 emission factor for (1) 12-minute shut down, and 28 minutes of steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
21	Nitrous oxide <= 0.83 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on the average heat input during start-up and AP-42 emission factor for (1) 20-minute start-up, the average heat input during shut down and AP-42 emission factor for (1) 12-minute shut down, and 28 minutes of steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
22	Acetaldehyde <= 0.672 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Acetophenone <= 0.0695 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acetophenone: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acetophenone: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
24	Acrolein <= 0.0912 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
25	Arsenic Emissions <= 0.000133 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
26	Benzene <= 0.518 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	Benzo (A) Pyrene Emissions <= 0.000122 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Benzo (A) Pyrene Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Benzo (A) Pyrene Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
28	Beryllium Emissions <= 0.000008 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Beryllium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Beryllium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
29	Biphenyl <= 0.013 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Biphenyl: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Biphenyl: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
30	Cadmium Emissions <= 0.000733 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS4

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	Chromium (Hexavalent) Emissions <= 0.00114 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Chromium (Hexavalent) Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Chromium (Hexavalent) Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
32	Cobalt Emissions <= 0.0000691 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
33	Ethylbenzene <= 0.075 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
34	Formaldehyde <= 1.91 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on the average heat input during start-up and California Air Toxics emission factor for (1) 20-minute start-up, the average heat input during shut down and California Air Toxics emission factor for (1) 12-minute shut down, and 28 minutes of steady state operation (U1, OS1). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS4

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Manganese Emissions <= 0.00038 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Manganese Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Manganese Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
36	Naphthalene <= 0.0104 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
37	Nickel Emissions <= 0.0014 lb/hr. Based on permitted emission rate for steady state operation (U1, OS1). Start-up and Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
38	Polynuclear aromatic hydrocarbons (PAHs) <= 0.0106 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Gas Turbine - Unit 1
OS4

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	Propylene oxide <= 0.0772 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
40	Styrene <= 0.0804 lb/hr. Maximum emission rate during any hour that includes both a start-up event and a shut down event. Based on permitted emission rate for turbine start-up without shut down (U1, OS2). Shut down emissions = steady state emissions. [N.J.A.C. 7:27-22.16(a)]	Styrene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Styrene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain relevant emission and operation information from turbine and control equipment manufacturers and the engineering factors and calculations used to project startup and shut down emissions and make available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	None.
41	Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-17. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

Compliance Schedule

Subject Item: U1 OS 0

Violated Requirement

5 STACK TEST FOR PM-10 and PM-2.5

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 PM-10 and PM-2.5 as specified in the compliance plan for OS1. The permittee shall provide EMS with the turbine load performance curve with the protocol.

Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.
[N.J.A.C. 7:27-22.16(a)]

Compliance Schedule:

Stack Test - Submit protocol, conduct test and submit results: Conduct a stack test.

The Department approved the stack test protocol on August 24, 2023.

Conduct a stack test for PM-10 and PM-2.5 no later than November 30, 2023.

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.

The 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. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): VMEU - Clayville Station

Facility ID (AIMS): 75808

Street Address: 4087 SOUTH LINCOLN AVE
VINELAND, NJ 08361

Mailing Address: JOHN LILLIE DIRECTOR VMU
640 EAST WOOD ST
PO BOX 1508
VINELAND, NJ 08362-1508

State Plane Coordinates:

X-Coordinate:	498,333
Y-Coordinate:	4,363,883
Units:	UTM Zone 18N - Meters
Datum:	WGS84
Source Org.:	Other/Unknown
Source Type:	Prop Loc - Dig Image

County: Cumberland

Location Description: Power plant located just off NJ Route 55.

Industry:

Primary SIC:	4911
Secondary SIC:	
NAICS:	221112

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Air Permit Information Contact**

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: Jeffrey M. Davis
NJ EIN: 00216001670
Title: Supervising Engineer
Phone: (856) 794-4000 x4541
Fax: (856) 405-4625 x
Other: ( ) - x
Type:
Email: jdavis@vinelandcity.org
Mailing Address: 57 W. Park Ave.
PO Box 1508
Vineland, NJ 08362-1508

Contact Type: **Emission Statements**

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: Jeffrey M. Davis
NJ EIN: 00216001670
Title: Supervising Engineer
Phone: (856) 794-4000 x4541
Fax: (856) 405-4625 x
Other: ( ) - x
Type:
Email: jdavis@vinelandcity.org
Mailing Address: 57 W. Park Ave.
PO Box 1508
Vineland, NJ 08362-1508

Contact Type: **Fees/Billing Contact**

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: Diane Amico
NJ EIN: 00216001670
Title: Sr. Environmental Specialist
Phone: (856) 794-4000 x4234
Fax: (856) 405-4625 x
Other: ( ) - x
Type:
Email: damico@vinelandcity.org
Mailing Address: 57 W. Park Ave.
PO Box 1508
Vineland, NJ 08362-1508

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: General Contact

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: Jeffrey M. Davis
NJ EIN: 00216001670
Title: Supervising Engineer
Phone: (856) 794-4000 x4541
Fax: (856) 405-4625 x
Other: ( ) - x
Type:
Email: jdavis@vinelandcity.org
Mailing Address: 57 W. Park Ave.
PO Box 1508
Vineland, NJ 08362-1508

Contact Type: On-Site Manager

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: Steven August
NJ EIN: 00216001670
Title: Asst. Supt. of Electric Generation
Phone: (856) 794-4000 x4241
Fax: (856) 405-4625 x
Other: ( ) - x
Type:
Email: saugust@vinelandcity.org
Mailing Address: 57 W. Park Ave
PO Box 1508
Vineland, NJ 08362-1508

Contact Type: Operator

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: John Lillie
NJ EIN: 00216001670
Title: Director
Phone: (856) 794-4000 x4164
Fax: (856) 405-4622 x
Other: ( ) - x
Type:
Email: jlillie@vinelandcity.org
Mailing Address: 640 E. Wood St.
PO Box 1508
Vineland, NJ 08362-1508

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Owner (Current Primary)**

Organization: City of Vineland
Org. Type: Municipal
Name: Anthony Fanucci
NJ EIN: 00216001670
Title: Mayor
Phone: (856) 794-4000 x4010
Fax: ( ) - x
Other: ( ) - x
Type:
Email: afanucci@vinelandcity.org
Mailing Address: 640 E. Wood St.
PO Box 1508
Vineland, NJ 08362-1508

Contact Type: **Responsible Official**

Organization: City of Vineland, Municipal Electric Utility
Org. Type: Municipal
Name: John Lillie
NJ EIN: 00216001670
Title: Director
Phone: (856) 794-4000 x4164
Fax: (856) 405-4622 x
Other: ( ) - x
Type:
Email: jlillie@vinelandcity.org
Mailing Address: 640 E. Wood St.
PO Box 1508
Vineland, NJ 08362-1508

VINELAND CITY MEU CLAYVILLE (75808)
BOP230001

Date: 11/02/2023

New Jersey Department of Environmental Protection
Non-Source Fugitive Emissions

FG NJID	Description of Activity Causing Emission	Location Description	Reasonable Estimate of Emissions (tpy)								
			VOC (Total)	NOx	CO	SO	TSP (Total)	PM-10	Pb	HAPS (Total)	Other (Total)
FG1	ammonia handling (unloading, spills, equipment leaks) outdoors	ammonia tank and equipment areas	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.002
FG2	use of electrical solvents and equipment paints outdoors	outdoor equipment	0.241	0.000	0.000	0.000	0.000	0.000	0.000	0.02500000	0.138
FG3	waste oil handling outdoors	facility grounds	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
FG4	road dust	facility lots and access roads	0.000	0.000	0.000	0.000	0.382	0.105	0.000	0.00000000	0.000
FG5	leaks from transformers and other oil-bearing equipment (e.g. recirculating systems for lubricating and cooling oil)	facility grounds surrounding turbine	1.100	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
FG6	natural gas purging	gas compressor	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.073
Total			1.355	0.000	0.000	0.000	0.382	0.105	0.000	0.02500000	0.213

VINELAND CITY MEU CLAYVILLE (75808)
BOP230001

Date: 11/2/2023

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	Lubricating and cooling oil pipelines and equipment (recirculating systems) operating within ventilated enclosures	Other Equipment	gas compressor and turbine buildings	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS2	handling of waste lubricating and cooling oils within ventilated enclosures	Other Equipment	gas compressor and turbine buildings	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS3	Parts cleaner (Cleaning Solution <5% VOCs, HAPs, or VOCs and HAPs)	Cleaning Machine (Open Top: Cold)	maintenance building	0.210	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS4	small tanks and reservoirs (Capacity <2,000 gallons each)	Storage Vessel	gas compressor building and outside turbine auxilliaries	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS5	ammonia lines and pumps within ventilated enclosures	Other Equipment	ammonia forwarding shed next to ammonia tank	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.002
IS6	use of equipment paints and electrical and cleaning solvents within ventilated enclosures	Other Equipment	onsite enclosed structures	0.241	0.000	0.000	0.000	0.000	0.000	0.000	0.02500000	0.138
Total				0.491	0.000	0.000	0.000	0.000	0.000	0.000	0.02500000	0.140

VINELAND CITY MEU CLAYVILLE (75808) Date: 11/2/2023

BOP230001

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	Unit 1	Turbine Unit No. 1	Combustion Turbine	PCP160001	6/1/2015	No	10/5/2017	

75808 VINELAND CITY MEU CLAYVILLE BOP230001 E1 (Combustion Turbine)
Print Date: 11/2/2023

Make:	
Manufacturer:	Rolls Royce
Model:	Trent 60
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	628.00
Type of Turbine:	Industrial
Type of Cycle:	Simple-Cycle — Description:
Industrial Application:	Electrical Generator — Description:
Power Output:	64.00 — Units: Megawatts

Is the combustion turbine using (check all that apply):

A Dry Low NOx Combustor:	☐		
Steam Injection:	☐	Steam to Fuel Ratio:	
Water Injection:	☑	Water to Fuel Ratio:	1.11
Other:	☑	Description:	Low NOx Combu

Is the turbine Equipped with a Duct Burner? ○ 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: 64 MW Output at 30 deg F Reference Temperature. 1.109 design water to fuel ratio when gas fired. Heat input of 628 MMBtu/hr is based on new and clean guaranteed performance with a 4% allowance added to account for equipment performance degradation over the permit term.

VINELAND CITY MEU CLAYVILLE (75808) Date: 11/2/2023

BOP230001

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
CD1	SCR-1	Selective Catalytic Reduction for Unit No. 1	Selective Catalytic Reduction	6/1/2015	No		
CD2	Ox-Cat-2	Oxidation Catalyst for Unit No. 1	Oxidizer (Catalytic)	6/1/2015	No		
CD3	H2O inj	Water Injection	Other	6/1/2015	No		

75808 VINELAND CITY MEU CLAYVILLE BOP230001 CD1 (Selective Catalytic Reduction)
Print Date: 11/2/2023

Make:	
Manufacturer:	Peerless Mfg. Co.
Model:	Edge AIG (ammonia injection grid)
Minimum Temperature at Catalyst Bed (°F):	450
Maximum Temperature at Catalyst Bed (°F):	825
Minimum Temperature at Reagent Injection Point (°F):	500
Maximum Temperature at Reagent Injection Point (°F):	800
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	
Minimum Reagent Charge Rate (gpm):	0.2
Maximum Reagent Charge Rate (gpm):	0.4
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum NOx to Reagent Mole Ratio:	1
Maximum NOx to Reagent Mole Ratio:	
Maximum Anticipated Ammonia Slip (ppm):	5
Type of Catalyst:	Corrugated - Vanadium, Tungsten, Titanium Oxide
Volume of Catalyst (ft^3):	1160
Form of Catalyst:	Modules
Anticipated Life of Catalyst:	3
Units:	Years
Have you attached a catalyst replacement schedule?	○ Yes ● No
Method of Determining Breakthrough:	CEMS
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No

75808 VINELAND CITY MEU CLAYVILLE BOP230001 CD1 (Selective Catalytic Reduction)
Print Date: 11/2/2023

Comments:

>3 Years Catalyst Life. Catalyst modules vary in size and reactivity, and different arrangements are possilble. The volume of the catalyst noted above is an approximate maximum for the space provided.

75808 VINELAND CITY MEU CLAYVILLE BOP230001 CD2 (Oxidizer (Catalytic))
Print Date: 11/2/2023

Make:	CAMET CO Catalyst
Manufacturer:	BASF
Model:	
Minimum Inlet Temperature (°F):	450
Maximum Inlet Temperature (°F)	825
Minimum Outlet Temperature (°F)	450
Maximum Outlet Temperature (°F):	825
Minimum Residence Time (sec)	0.01
Fuel Type:	
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Minimum Pressure Drop Across Catalyst (psi):	0.05
Maximum Pressure Drop Across Catalyst (psi):	
Catalyst Material:	Platinum group metals, aloumina, steel.
Form of Catalyst:	Honeycomb
Description:	Modules
Minimum Expected Life of Catalyst:	3
Units:	Years
Volume of Catalyst (ft^3):	125
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	CEMS
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	Minimum Residence Time = 0.002 seconds Volume of Catalyst shown is an approximate minimum (catalyst modules can vary). >3 years expected catalyst life.

75808 VINELAND CITY MEU CLAYVILLE BOP230001 CD3 (Other)
Print Date: 11/2/2023

Make:	Rolls-Royce / Siemens
Manufacturer:	Rolls-Royce / Siemens
Model:	Trent 60 WLE
Maximum Air Flow Rate to Control Device (acfm):	
Maximum Temperature of Vapor Stream to Control Device (°F):	
Minimum Temperature of Vapor Stream to Control Device (°F):	33
Minimum Moisture Content of Vapor Stream to Control Device (%):	
Minimum Pressure Drop Across Control Device (in. H20):	
Maximum Pressure Drop Across Control Device (in. H20):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Monitoring N
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	

VINELAND CITY MEU CLAYVILLE (75808)
BOP230001

Date: 11/2/2023

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	Unit No. 1	Unit No. 1 Stack	Round	140	135	120	750.0	400.0	825.0	770,000.0	627,000.0	825,000.0	Up	

VINELAND CITY MEU CLAYVILLE (75808)
BOP230001

Date: 11/2/2023

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

U 1 Unit No. 1 Gas Turbine - Unit 1

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Turbine - NG	Unit No. 1 Firing Natural Gas	Normal - Steady State	E1	CD1 (S) CD2 (P) CD3 (P)	PT1	2-01-002-01	0.0	3,579.0		627,000.0	825,000.0	400.0	825.0
OS2	Turbine - SU	Unit No. 1 - Start-up	Startup	E1		PT1	2-01-002-01	0.0						
OS3	Turbine - SD	Unit No. 1 - Shut Down	Shutdown	E1		PT1	2-01-002-01	0.0						
OS4	Turbine-SUSD	Unit No. 1 - Start-up and Shut Down During the Same Hour	Startup	E1		PT1	2-01-002-01	0.0						

Date: 11/2/2023

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR10 NJAC 7:27C

Members:

Type	ID	OS	Step
E	E 1		
U	U 1	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Other

Other (explain): RGGI Rule: N.J.A.C. 7:27C - CO2 Budget Trading Program

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

Operating Circumstances:

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR11 NJAC 7:27F

Members:

Type	ID	OS	Step
E	E 1		
U	U 1	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Other

Other (explain): PACT Rule: N.J.A.C. 7:27F - Control and Prohibition of Carbon Dioxide Emissions

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

Operating Circumstances:

Appendix I:

PHASE II ACID RAIN PERMIT

Issued to: **Vineland Municipal Electric Utility – Clayville**
4087 South Lincoln Ave.
Vineland, NJ 08361

Owned by: **City of Vineland**
640 E. Wood Street
Vineland, NJ 08362

Operated by: City of Vineland, Municipal Electric Utility
640 E. Wood Street
Vineland, NJ 08362

ORIS Code: **58235**

Effective: **To Be Determined (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.

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 05/31/2025

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ **new** ☐ **revised** ■ **for ARP permit renewal**

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Facility (Source) Name	State	Plant Code
Clayville	NJ	58235

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
U1	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes

Facility (Source) Name (from STEP 1) Clayville

STEP 3

Read the standard requirements.

Permit 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).

(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.

Facility (Source) Name (from STEP 1) Clayville

STEP 3, Cont'd.

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;
   (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.

Facility (Source) Name (from STEP 1) Clayville

STEP 3, Cont'd.

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

Certification

Read the certification statement, sign, and date.

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 Jeffrey M. Davis	
Signature	Date 2/10/2023

Instructions for the Acid Rain Program Permit Application

The Acid Rain Program requires the designated representative to submit an Acid Rain permit application for each source with an affected unit. A complete Certificate of Representation must be received by EPA before the permit application is submitted to the Title V permitting authority. A complete Acid Rain permit application, once submitted, is binding on the owners and operators of the affected source and is enforceable in the absence of a permit until the Title V permitting authority either issues a permit to the source or disapproves the application.

Please type or print. If assistance is needed, contact the Title V permitting authority.

STEP 1 A Plant Code is a 4- or 5-digit number assigned by the Department of Energy's (DOE) Energy Information Administration (EIA) to facilities that generate electricity. For older facilities, "Plant Code" is synonymous with "ORISPL" and "Facility" codes. If the facility generates electricity but no Plant Code has been assigned, or if there is uncertainty regarding what the Plant Code is, send an email to the EIA. The email address is EIA-860@eia.gov.

STEP 2 In column "a," identify each unit at the facility by providing the appropriate unit identification number, consistent with the identifiers used in the Certificate of Representation and with submissions made to DOE and/or EIA. Do not list duct burners. For new units without identification numbers, owners and operators must assign identifiers consistent with EIA and DOE requirements. Each Acid Rain Program submission that includes the unit identification number(s) (e.g., Acid Rain permit applications, monitoring plans, quarterly reports, etc.) should reference those unit identification numbers in exactly the same way that they are referenced on the Certificate of Representation.

Submission Deadlines

For new units, an initial Acid Rain permit application must be submitted to the Title V permitting authority 24 months before the date the unit commences operation. Acid Rain permit renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a Title V permit, or such longer time as provided for under the Title V permitting authority's operating permits regulation.

Submission Instructions

Submit this form to the appropriate Title V permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional Acid Rain contact, or call EPA's Clean Air Markets Hotline at (202) 343-9620.

Paperwork Burden Estimate

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2060-0258). Responses to this collection of information are mandatory (40 CFR 72.30 and 72.31). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 8 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Appendix II:

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

- **CSAPR NOx Annual Trading Program,**
- **CSAPR NOx 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 AAAAA 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 AAAAA 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 BBBBB 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 BBBBB 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 BBBBB 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 SO_2 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 SO_2 Group 1 source and each TR SO_2 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 SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO_2 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) SO_2 emissions requirements.

(1) TR SO_2 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 SO_2 Group 1 source and each TR SO2 Group 1 unit at the source shall hold, in the source's compliance account, TR SO_2 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 SO_2 emissions for such control period from all TR SO_2 Group 1 units at the source.

(ii). If total SO_2 emissions during a control period in a given year from the TR SO_2 Group 1 units at a TR SO_2 Group 1 source are in excess of the TR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A). The owners and operators of the source and each TR SO_2 Group 1 unit at the source shall hold the TR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

(B). The owners and operators of the source and each TR SO_2 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 SO_2 Group 1 assurance provisions.

(i). If total SO_2 emissions during a control period in a given year from all TR SO_2 Group 1 units at TR SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 emissions exceeds the respective common designated representative's assurance level; and

(B). The amount by which total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state for such control period exceed the state assurance level.

(ii). The owners and operators shall hold the TR SO_2 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 SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 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 SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 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 SO_2 emissions from the TR SO_2 Group 1 units at TR SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year.

(ii). A TR SO_2 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 SO_2 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 SO_2 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 SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 Group 1 source and each TR SO_2 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 SO_2 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 SO_2 Group 1 Trading Program.

(2) The designated representative of a TR SO_2 Group 1 source and each TR SO_2 Group 1 unit at the source shall make all submissions required under the TR SO_2 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 SO_2 Group 1 Trading Program that applies to a TR SO_2 Group 1 source or the designated representative of a TR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the TR SO_2 Group 1 units at the source.

(2) Any provision of the TR SO_2 Group 1 Trading Program that applies to a TR SO_2 Group 1 unit or the designated representative of a TR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

(g) Effect on other authorities.

No provision of the TR SO_2 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 SO_2 Group 1 source or TR SO_2 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.