State of New Jersey
Department of Environmental Protection
Air, Energy and Materials Sustainability
Division of Air Quality
Bureau of Stationary Sources
401 E. State Street, 2nd Floor, P.O. Box 420, Mail Code 401-02
Trenton, NJ 08625-0420

PHILIP D. MURPHY
*Governor*

TAHESHA L. WAY
*Lt. Governor*

SHAWN M. LATOURETTE
*COMMISSIONER*

# Air Pollution Control Operating Permit
# Renewal

**Permit Activity Number: BOP220001** **Program Interest Number: 80002**

| Mailing Address | Plant Location |
|---|---|
| JOHN KENNEDY<br>AUTHORIZED REPRESENTATIVE<br>GILBERT POWER LLC.<br>200 W. MADISON, STE 3810, SUITE 2000<br>CHICAGO, IL. 60606 | GILBERT GENERATING STATION<br>315 Riegelsville Rd<br>Milford Boro<br>Hunterdon County |
| | |

**Initial Operating Permit Approval Date:** **May 28, 2003**

**Operating Permit Approval Date:** **PROPOSED**

**Operating Permit Expiration Date:** **May 27, 2023 (Operating Under Application Shield)**

## AUTHORITY AND APPLICABILITY

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

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

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

## PERMIT SHIELD

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

## COMPLIANCE SCHEDULES

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

## COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

**ACCESSING PERMITS**

The facility's current approved operating permit and any previously issued permits (e.g. superseded, expired, or terminated) are available for download in PDF format at: 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 Thaddeus Soley at (609)-940-5705.

Approved by:

_____
Shafi Ahmed

Enclosure

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

**Facility Name: GILBERT GENERATING STATION**
**Program Interest Number: 80002**
**Permit Activity Number: BOP220001**

## TABLE OF CONTENTS

## Section A

## Facility Name: GILBERT GENERATING STATION
## Program Interest Number: 80002
## Permit Activity Number: BOP220001

## 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 | 38.2 | 489.5 | 1765.1 | 4.97 | 59.6 | 43.9 | 43.9 | 0.0013 | 1.416 | |
| Batch Process Summary | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Group Summary | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Total Emissions | 38.2 | 489.5 | 1765.1 | 4.97 | 59.6 | 43.9 | 43.9 | 0.0013 | 1.416 | 1,001,520 |

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 | 1.96 | NA | NA | NA | 0.002 | NA | NA | NA | NA |
| Non-Source Fugitive Emissions | NA | NA | NA | NA | NA | NA | NA | NA | NA |

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: GILBERT GENERATING STATION
## Program Interest Number: 80002
## Permit Activity Number: BOP220001

## POLLUTANT EMISSIONS SUMMARY

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

| HAP | TPY |
|---|---|
| 1,3-Butadiene | 0.00084 |
| Acetaldehyde | 0.33 |
| Acrolein | 0.053 |
| Arsenic | 0.00044 |
| Benzene | 0.115 |
| Beryllium | 0.00012 |
| Cadmium | 0.000704 |
| Chromium | 0.0000234 |
| Cobalt | 0.000173 |
| Ethyl benzene | 0.264 |
| Formaldehyde | 0.224 |
| Lead | 0.0013 |
| Manganese | 0.0223 |
| Naphthalene | 0.0213 |
| Nickel | 0.106 |
| Polycyclic Organic Matter | 0.0302 |
| Propylene Oxide | 0.24 |

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

| Other Air Contaminant | TPY |
|---|---|
| Methane | 19.00 |
| Nitrous Oxide | 1.98 |
| | |
| | |
| | |
| | |

[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: GILBERT GENERATING STATION
## Program Interest Number: 80002
## Permit Activity Number: BOP220001

## 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: http://njdeponline.com/. The application is considered timely if it is received at least 12 months before the

expiration date of the operating permit. To be deemed administratively complete, the renewal application shall include all information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies can be identified and addressed to ensure that the application is administratively complete by the renewal deadline. Only renewal applications which are timely and administratively complete are eligible for an application shield.

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]

25. Testing Every 5 years shall be defined as no later than the end of the 60th month after the first required and each subsequent stack test was completed for the new or modified source.

## Section C

## Facility Name: GILBERT GENERATING STATION
## Program Interest Number: 80002
## Permit Activity Number: BOP220001

# 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 |

## Section D

## Facility Name: GILBERT GENERATING STATION
## Program Interest Number: 80002
## Permit Activity Number: BOP220001

# FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

### FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

**Subject Item and Name** **Page Number**

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

# New Jersey Department of Environmental Protection
# Reason for Application

## Permit Being Modified

**Permit Class:** BOP **Number:** 230001

**Description of Modifications:** Gilbert Power LLC. hereby submits this renewal application for the Title V operating permit for its facility in Hunterton County NJ.

Please see the application package for additional details.

With this Title V renewal application, some additional changes to the permit are requested, including:
1. U2406 (Auxiliary Boiler) – Gilbert Power proposes to remove U2406 from the permit because it is retired and no longer operational.
2. New HAP reporting thresholds – Gilbert Power has evaluated the revised, and in many cases lowered, HAP reporting thresholds in N.J.A.C. 7:27-17.9 that become operative in February 2018. Several previously unreportable HAPs have become reportable for U2210-U2213, U2323, and U26 (Natural Gas Heater).
3. Methane (CH4) and nitrous oxide (N2O) emissions – Gilbert Power proposes to add CH4 and N2O emissions for U2210-U2213 and U2323 because they exceed 0.05 lb/hr.
4. Delisting of pollutants with emissions below the applicable reporting threshold (e.g. SO2 for U2520 and U2524; SO2, TSP, PM10, and PM2.5 for U2519).

# 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.<br><br>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 |
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| 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.<br><br>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.<br>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.<br><br>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.<br><br>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.<br><br>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. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 21 | 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:** **IS6 4 Fuel Oil Storage Tanks <= 350 degrees F and < 0.02 psia**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Sulfur Content in Fuel <= 15 ppmw (0.0015 % by weight). Maximum allowable sulfur content in No. 2 and lighter fuel. [N.J.A.C. 7:27- 9.2(a)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 2 | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the effective date of the applicable standard in 1B. [N.J.A.C. 7:27- 9.2(a)] | None. | None. | None. |
| 3 | Sulfur Content in Fuel <= 0.0015 % by weight. Maximum allowable sulfur content in ultra low sulfur distillate fuel oil (ULSD).<br><br>On and after June 10, 2009, no delivery of fuel that does not meet the ASTM D975-08ae1 Standard Specification for Diesel Fuel Oils/Grade No. 1-D S15, or Grade No. 2-D S15 (ultra low sulfur distillate fuel oil (ULSD)) may be accepted. Any non - ULSD fuel oil remaining in fuel oil storage tanks may be used up after this date. [N.J.A.C. 7:27-22.16(a)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)] | None. |
| 4 | The operating temperature shall not be greater than 350 degrees F. [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 5 | The vapor pressure of the liquid, excluding the vapor pressure of water, shall be less than 0.02 psia at the liquid's actual temperature or at 70 degrees F, whichever is higher. [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 6 | The tank shall have no visible emissions, exclusive of water vapor, to the outdoor atmosphere. [N.J.A.C. 7:27-22.1] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 7 | The tank shall not emit any air contaminants which may cause an odor detectable outside the property boundaries of the facility. [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 8 | The tank shall not qualify for any NESHAPS, MACT, or NSPS air pollution control standards, excluding the NSPS requirements to maintain a record of the contents of the tank, the period of storage of these contents, and the maximum true vapor pressure of the liquid stored. [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 9 | The tank's potential to emit each TXS and each HAP shall not exceed the de minimis reporting thresholds as specified in N.J.A.C. 7:27-17.9(a). [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 10 | The percentage by weight of all HAPs collectively in the raw material stored in the tank shall be less than 1.0 percent. [N.J.A.C. 7:27-22.1] | None. | None. | None. |
| 11 | The owner or operator shall have readily available upon Department request a statement certified in accordance with N.J.A.C. 7:27-1.39, signed by the responsible official, as defined at N.J.A.C. 7:27-1.4, that: (1) specifies the contents of the tank; (2) affirms that the tank meets the applicable requirements of Ref. #1 to #7 above; and (3) attests that the tank is in compliance with all other applicable state or federal air pollution requirements. [N.J.A.C. 7:27-22.1] | None. | None. | None. |

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

**Subject Item:** **GR1 Turbine Test**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | The Alternative Emission Monitoring Plan for GenOn Peaking Units shall apply to all "Peaking Units" in accordance with the definitions at 40 CFR 72.2 (see also Ref. titled as CAPACITY FACTOR). A peaking generating unit is designed to provide power primarily during "peak demand periods" (like the extreme heat of summer or severe cold of winter). [N.J.A.C. 7:27-22.16(a)] | Other: The permittee shall monitor and record the capacity factor of each "peaking generating unit" annually, to ensure that they qualify for the "peaking unit" status as defined by 40CFR 72.2.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping by manual logging of parameter or storing data in a computer system, each calendar year.[N.J.A.C. 7:27-22.16(o)]. | Submit a report: Annually to Chief, REO and to Chief, EMS, within 45 days following the end of each calendar year beginning with 2008, giving the details of each engine that qualifies as peaking unit in the approved format to identify facility name, emission unit, test date, and operating hours. [N.J.A.C. 7:27-22.16(o)] |
| 2 | CAPACITY FACTOR:<br>A peaking unit, as defined at 40 CFR 72.2 is a unit that:<br>1) has an average capacity factor of no more than 10% during the previous 3 calendar years; and<br>2) has a capacity factor of no more than 20% in each of those calendar years.<br><br>Any combustion turbine that exceeds the above capacity factor limits and therefore becomes a non-peaking unit shall:<br>1) Install a Continuous Emission Monitor which measures NOx, CO, and O2; and<br>2) Submit a permit modification application to request that emission monitoring requirements be updated for that emission unit.<br>3) Perform all stack testing required by this permit for non peaking units. [N.J.A.C. 7:27-22.16(a)] | Other: Installation and operation of a continuous emission monitor on the turbine is required if operation of the unit exceeds the peaking unit thresholds set forth at 40 CFR 72.2.[N.J.A.C. 7:27-22.16(o)]. | None. | If operation of the combustion turbine exceeds the peaking turbine thresholds set forth at 40 CFR 72.2, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section, within 90 days of exceeding the threshold. Installation and certification testing of the monitor is required within 180 days of exceeding the threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. Also submit a permit modification application requesting to have emissions monitoring requirements updated in the permit.<br><br>If CEMS is installed, after NJDEP approval of certification testing, 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). [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 |
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| 3 | PERIODIC EMISSION MONITORING TESTING:<br>Emission testing shall be performed annually on each 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 one of the 2 exemptions listed below. The tests may be conducted during "in market operation" of the unit as long as all non-exempt turbines are tested each year.<br>Exemptions:<br>1) 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.<br>2) Any turbine that is reference method stack tested during a given year need not perform the annual periodic emission monitoring described above during that year. If initial stack testing for each required pollutant has been performed and the turbine is operated as a "Peaking Unit" in accordance with the definitons at 40 CFR 72.2 (see also Ref. titled as CAPACITY FACTOR), periodic emission monitoring of NOx, CO, and O2 shall be permitted in lieu of stack test requirements at Ref. titled as REFERENCE METHOD (RM) STACK TESTING FOR GASEOUS POLLUTANTS (see Ref. titled as EXEMPTION FROM REFERENCE METHOD (RM) STACK TESTING REQUREMENTS).<br>Dual Fuel Engines:<br>For engines permitted to combust either natural gas or fuel oil, emission testing shall be required on the fuel fired at the time of the test. [N.J.A.C. 7:27-22.16(a)] | Monitored by periodic emission monitoring annually for NOx, CO and O2 for each turbine; or continuous emission monitoring of NOx, CO and O2 for each turbine. All periodic emission monitoring shall be done in accordance with Technical Manual 1005. [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 and EMS 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.<br><br>Test reports shall be submitted to Chief, REO and Chief, EMS within 45 days following the end of each calendar year (starting with 2008) in the approved format to identify the facility name, emission unit, test date, and operating hours. Emissions of NOx and CO shall be reported in ppmdv @ 15% O2 and lb/MMBtu (HHV). The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [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 | PERIODIC EMISSION TESTING FAILURE PROTOCOL:<br><br>Any turbine failing emission tests using a periodic emission monitoring device shall be removed from service, repaired and tested again with the periodic emission monitoring device, while combusting the same fuel. If the turbine fails a second time, it shall be Reference Method stack tested for NOx, CO, VOC, TSP and PM-10 (while combusting ULSD (or ULSD mix as permitted), if that is the fuel used during initial periodic emission monitoring) or for NOx, CO and PM-10 (while combusting natural gas, if that is the fuel used during initial periodic emission monitoring). The Reference Method stack testing shall be conducted within 180 days of the date that the turbine fails periodic emission monitoring for the second time.<br><br>Turbines that pass the RM test shall be put back into service.<br><br>Permittee should make sure that the periodic emission monitoring device is working properly before using it for testing. [N.J.A.C. 7:27-22.16(a)] | Other: Any turbine failing emission tests using periodic emission monitoring devices shall be removed from service, repaired and re-tested with periodic emission monitoring. If it fails a second time, it shall be tested with full reference method (RM) testing.[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 to Chief REO and Chief, EMS, within 45 days following the end of each calendar year (beginning with 2008), in the approved format to identify facility name, emission unit, test date, and operating hours of the effected units.<br><br>See submittal/action requirement for REF #3, #5 and #6.<br><br>An exceedence identified during periodic emission testing, in accordance with this condition shall not be a violation of the applicable requirement. [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 |
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| 5 | REFERENCE METHOD (RM) STACK TESTING FOR GASEOUS POLLUTANTS:<br><br>Conduct comprehensive stack tests on each of these units once every 10 years (in accordance with Appendix III). Testing shall demonstrate compliance with the NOx, CO and VOC emission limits (when combusting ULSD (or ULSD mix as permitted)) and with the NOx and CO emission limits (when combusting natural gas).<br><br>Three tests shall be conducted at maximum base load achievable on the day of testing (as determined by a base load temperature control curve) under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for that day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS the Base Load Temperature Control Curve with the protocol and shall submit all data necessary to substantiate the ambient conditions with the test report. The testing shall be conducted in accordance with a protocol approved by Chief, EMS. [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for NOx, CO and VOC emissions (when combusting ULSD (or ULSD mix as permitted)) and for NOx and CO emissions (when combusting natural gas). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>A protocol to conduct stack emission testing shall be submitted to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval within 60 days from the date of the approval of this operating permit renewal. Thereafter, a protocol shall be submitted to EMS for approval once per permit term, within 60 days of renewal permit approval. Each protocol shall include all units that are to be stack testing during that permit term. The Permittee shall confirm their intent to use the approved protocol or submit revisions as necessary, for EMS approval, at least 90 days prior to the intended test date.<br><br>Permittee shall contact EMS at (609) 530-4041 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in ppmdv @ 15% O2, lb/MMBtu (HHV), and lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [N.J.A.C. 7:27-22.16(o)] |

GR1 Turbine Test

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 6 | REPRESENTATIVE REFERENCE METHOD (RM) STACK TESTING FOR PARTICULATES:<br><br>Conduct comprehensive stack tests on one representative unit in each group, once every 10 years (in accordance with Appendix IV). See eligibility requirements at 40 CFR 75.19 for representative testing in groups of identical units. The representative unit shall be chosen by the Department. Testing shall demonstrate compliance with TSP and PM-10 emission limits (when combusting ULSD (or ULSD mix as permitted)) and with PM-10 emission limits (when combusting natural gas).<br><br>Three tests shall be conducted at the maximum base load achievable on the day of testing (as determined by a base load temperature control curve) under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for the day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS the Base Load Temperature Control Curve with the protocol and shall submit all data necessary to substantiate the ambient conditions with the test report. The testing shall be conducted in accordance with a protocol approved by Chief, EMS. [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for TSP and PM-10 emissions (when combusting ULSD (or ULSD mix as permitted)) and for PM-10 emissions (when combusting natural gas). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>A protocol to conduct stack emission testing shall be submitted to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval within 60 days from the date of the approval of this operating permit renewal. Thereafter, a protocol shall be submitted to EMS for approval once per permit term (if PM testing is required during that permit term), within 60 days of renewal permit approval. Each protocol shall include all units that are to be stack testing during that permit term. The Permittee shall confirm thier intent to use the approved protocol or submit revisions as necessary, for EMS approval, at least 90 days prior to the intended test date.<br><br>Permittee shall contact EMS at (609) 530-4041 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [N.J.A.C. 7:27-22.16(o)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 7 | REPRESENTATIVE REFERENCE METHOD (RM) STACK TESTIONG FOR PARTICULATES - RETESTING:<br><br>If a representative unit stack test, performed in accordance with Ref #6, results in emissions which exceed 80% of the TSP or PM-10 emission rate allowed by the permit, another representative unit, chosen by the Department, from that group of turbines shall be stack tested, in accordance with Ref #6, within 180 days of the Department's reciept of the stack test report. Stack testing of additional turbines shall continue in this format until a representative unit stack test results in emissions which do not exceed 80% of the applicable permit limit or until all turbines in the group have been stack tested. This condition does not apply to U2323 as it is not part of a group of representative units. [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for TSP and PM-10 emissions (when combusting ULSD (or ULSD mix as permitted)) and for PM-10 emissions (when combusting natural gas). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>A protocol to conduct stack emission testing shall be submitted to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval within 60 days from the date of the approval of this operating permit renewal. Thereafter, a protocol shall be submitted to EMS for approval once per permit term (if PM testing is required during that permit term), within 60 days of renewal permit approval. Each protocol shall include all units that are to be stack testing during that permit term. The Permittee shall confirm thier intent to use the approved protocol or submit revisions as necessary, for EMS approval, at least 90 days prior to the intended test date.<br><br>Permittee shall contact EMS at (609) 530-4041 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [N.J.A.C. 7:27-22.16(o)] |

GR1 Turbine Test

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 8 | OVER 250 HR/YR ULSD COMBUSTION PROTOCOL:<br><br>If any unit in a given group of turbines combusts ULSD (or ULSD mix as permitted) for more than 250 hours in a given calendar year, the unit shall be Reference Method stack tested within 180 days of the exceedence. Testing shall demonstrate compliance with the TSP and PM-10 emission limits (when combusting ULSD (or ULSD mix as permitted)). Gilbert has two groups of turbines, CT9 and STAG4-7; however, STAG4-7 do not combust ULSD. The 250 hrs/yr ULSD limit applies only to CT9 (U2323).<br><br>Three tests shall be conducted at maximum base load achievable on the day of testing (as determined by a base load temperature control curve) under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for that day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS the Base Load Temperature Control Curve with the protocol and shall submit all data necessary to substantiate the ambient conditions with the test report. The testing shall be conducted in accordance with a protocol approved by Chief, EMS. [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for TSP and PM-10 emissions (when combusting ULSD (or ULSD mix as permitted). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>Submit a stack test protocol to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval within 30 days of exceeding the 250 hr/yr ULSD consumption limit.<br><br>Permittee shall contact EMS at (609) 530-4041 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [N.J.A.C. 7:27-22.16(o)] |

GR1 Turbine Test

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 9 | OPACITY FAILURE PROTOCOL:<br><br>If the opacity visual determination (performed in accordance with N.J.A.C.7:27B-2) results in non-compliant results, the unit shall be reference method stack tested within 180 days of the failure. Testing shall demonstrate compliance with the TSP and PM-10 emission limits (when combusting ULSD (or ULSD mix as permitted)).<br><br>Three tests shall be conducted at maximum base load achievable on the day of testing (as determined by a base load temperature control curve) under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for that day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS the Base Load Temperature Control Curve with the protocol and shall submit all data necessary to substantiate the ambient conditions with the test report. The testing shall be conducted in accordance with a protocol approved by Chief, EMS. [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for TSP and PM-10 emissions (when combusting ULSD). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>Submit a stack test protocol to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval within 30 days of failing the opacity visual determination.<br><br>Permittee shall contact EMS at (609) 530-4041 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [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 |
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| 10 | EXEMPTION FROM REFERENCE METHOD (RM) STACK TESTING REQUREMENTS:<br><br>If initial stack testing has already been performed for each required pollutant from a given turbine and that turbine is operated as a "Peaking Unit" as defined at 40 CFR 72.2 (see also Ref. titled as CAPACITY FACTOR), periodic emission monitoring, pursuant to Ref. titled as PERIODIC EMISSION MONITORING TESTING, may be permitted in lieu of stack tests required at Ref. titled as REFERENCE METHOD (RM) STACK TESTING FOR GASEOUS POLLUTANTS.<br><br>If a turbine is exempt from Ref. titled as REFERENCE METHOD (RM) STACK TESTING FOR GASEOUS POLLUTANTS and the turbine exceeds the allowable capacity factor for a "peaking unit" (see Ref. titled as CAPACITY FACTOR) prior to the next scheduled stack test, the permittee shall conduct stack testing, on the exempt unit within 180 days of the capacity factor excedence. Testing shall be performed pursuant to Ref. titled as REFERENCE METHOD (RM) STACK TESTING FOR GASEOUS POLLUTANTS and the schedule in Appendix III Retesting shall not be required if any of these pollutants were already tested at the last scheduled interval (see Appendix III). [N.J.A.C. 7:27-22.16(a)] | Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for TSP and PM-10 emissions (when combusting ULSD (or ULSD mix as permitted)) and for PM-10 emissions (when combusting natural gas). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule to Chief EMS, in the approved format to identify facility name, emission unit, test date, and total hours of operation during the past 3 calendar years.<br><br>Submit a stack test protocol to the Emission Measurement Section (EMS), at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625, for approval within 30 days of exceeding the capacity factor.<br><br>Permittee shall contact EMS at (609) 984-3443 to schedule a mutually acceptable stack test window, at least 30 days prior to the proposed stack test window. This stack test window shall be a 1 week period during which stack testing is proposed to be performed. Permittee shall notify EMS 7 days prior to actually performing the stack testing, of the actual test date(s).<br><br>Stack test reports shall be submitted to EMS no later than 45 days after completion of stack emission testing. All test results shall be reported in ppmdv @ 15% O2, lb/MMBtu (HHV), and lb/hr. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist. [N.J.A.C. 7:27-22.16(o)] |

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## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 11 | For the purpose of reporting annual emissions in accordance with N.J.A.C 7:27-21, in lieu of providing actual test data for each individual CT, when more than one representative turbine is required to be stack tested due to test results exceeding 80% of the permit limit, the highest average of three runs for TSP and PM-10 from all stack tests performed within a group of turbines shall be used. If only one representative unit is stack tested, there will only be one average of three test runs for each pollutant. See REF #6 for Particulate stack test requirements.<br><br>To determine the reportable TSP and PM-10 emissions pursuant to N.J.A.C 7:27-21:<br>1) For each turbine that was stack tested, the average of the three test runs for TSP and PM-10 shall be multiplied by the number of hours that the turbine was operated during the year to determine reportable annual TSP and PM-10 emissions for that year.<br>2) For each turbine that was not stack tested, the highest average, calculated above for TSP and PM-10 shall be multiplied by 1.2 and then by the number of hours that the turbine was operated during the year to determine reportable annual TSP and PM-10 emissions for that year.<br><br>The TSP and PM-10 averages derived by the above method shall be used for future year emission statement reports until the next Reference Method TSP or PM-10 tests are performed on a representative turbine from that group of turbines at which time a new average will be be calculated. [N.J.A.C. 7:27-22.16(a)] | None. | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. Calculation of applicable three run TSP and PM-10 emission test results and calculation of annual emissions, based on the applicable three run average shall be maintained. [N.J.A.C. 7:27-22.16(a)] | Submit an Annual Emission Statement: Annually. [N.J.A.C. 7:27-21] |

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

**Subject Item:** **GR2 Combustion Turbines**

| 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:<br>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;<br>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;<br>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:<br>i. For a unit that commences commercial operation before December 17, 2018, the calendar quarter beginning January 1, 2020; or<br>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.<br><br>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.<br><br>The CO2 authorized account representative shall submit, to the Bureau of Energy and Sustainability, a compliance certification in support of each quarterly report, pursuant to N.J.A.C. 7:27C-8.5(c)3. [N.J.A.C. 7:27-8.5(c)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 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)]<br>A CO2 allowance shall not be deducted, in order to comply with N.J.A.C. 7:27-1.4(f), for a control period that ends prior to the year for which the CO2 allowance was allocated. [N.J.A.C 7:27C-1.4(j)]<br>A CO2 offset allowance shall not be deducted, in order to comply with N.J.A.C. 7:27-1.4(f), beyond the applicable percent limitations at N.J.A.C. 7:27C6.9(a)3. [N.J.A.C. 7:27C- 1.4(k)] | 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<br><br>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:<br>1. Forfeit the CO2 allowances required for deduction under N.J.A.C. 7:27C-6.9(e);<br>2. Not use any CO2 offset allowances to cover any part of such excess emissions; and<br>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)] |

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| 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. |

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## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
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| 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:<br>- All emissions monitoring information, in accordance with N.J.A.C. 7:27C-8 and 40 CFR 75.57;<br>- Copies of all reports, compliance certifications, and other submissions, and all records made or required under the CO2 Budget Trading Program; and<br>- 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.<br>[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. |

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## Facility Specific Requirements

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| 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):<br>1. Identification of the CO2 budget source and each CO2 budget unit at the source;<br>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<br>3. The compliance certification:<br>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] |

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| 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)]<br>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)] |

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|---|---|---|---|---|
| 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<br>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<br>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)]<br>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)]<br>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:<br>- a diagram of the electrical and/or steam system,<br>- a description of each output monitoring system,<br>- a detailed description of all quality assurance and quality control activities, and<br>- 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)]<br>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:** **GR3 PACT Rule Permit Conditions**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | CO2 <= 1,700 lb/MW-hr.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>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).<br><br>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.<br><br>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.<br><br>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).<br><br>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:** **U26 Natural Gas Heater for CT 9**
**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | VOC (Total) <= 0.103 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | NOx (Total) <= 0.158 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | CO <= 0.164 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | Cobalt Emissions <= 0.000173 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

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

**Emission Unit:** **U26 Natural Gas Heater for CT 9**
**Operating Scenario:** **OS1 Heater Natural Gas for CT 9**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | No visible emissions exclusive of visible condensed water vapor, except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27- 3.2(c)] | None. | None. | None. |
| 2 | Heater fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | Maximum Gross Heat Input <= 3.85 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)] | Other: Fuel burner rated capacity.[N.J.A.C. 7:27-22.16(o)]. | None. | None. |
| 4 | Natural Gas Usage <= 4.027 MMft^3/yr. [N.J.A.C. 7:27-22.16(a)] | Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). A gas meter must be installed within 180 days of approval of the operating permit. [N.J.A.C. 7:27-22.16(a)] | Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation or manual logging each month during operation. The usage per any consecutive 12-month period shall be calculated by the sum of the amount consumed during any one month added to the sum of the amount consumed during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 5 | VOC (Total) <= 0.193 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | NOx (Total) <= 0.296 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 7 | CO <= 0.308 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 8 | Cobalt Emissions <= 0.0003234 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

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

**Emission Unit:** **U2210 Combined Cycle Unit with Heat Recovery Steam Generator, U2211 Combined Cycle Unit with Heat Recovery Steam Generator, U2212 Combined Cycle Unit with Heat Recovery Steam Generator, U2213 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Summary of Applicable Federal Regulations:<br>40 CFR Part 72: Acid Rain<br>40 CFR Part 97: Cross-State Air Pollution Rule (CSAPR). [40 CFR Federal Rules Summary] | None. | None. | None. |
| 2 | Conduct Periodic Emission Monitoring and Reference Method Stack Testing as per the requirements in GR1 and monitoring schedule in Appendix III and IV. [N.J.A.C. 7:27-22.16(a)] | Other: See GR1 for requirements[N.J.A.C. 7:27-22.16(o)]. | Other: See GR1 for requirements[N.J.A.C. 7:27-22.16(o)]. | Other (provide description): Other See GR1 for requirements. [N.J.A.C. 7:27-22.16(o)] |
| 3 | This turbine shall only be operated at peak load under the following conditions:<br><br>1) The annual PJM required summer and winter load verification tests.<br>2) During a MEG alert, which is a period of time during which one or more electric generating units are operated at emergency capacity at the direction of the load dispatcher, PJM, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both.<br><br>During all other periods of operation, this turbine must be operated at a load no greater than maximum base load (as determined by a base load temperature control curve). Stack testing shall be performed at maximum base load as well (See GR1). [N.J.A.C. 7:27-22.16(a)] | Monitored by hour/time monitor continuously. The permittee shall monitor the duration of time that the turbine is operated at peak load. [N.J.A.C. 7:27-22.16(o)] | Each time this turbine is operated at peak load, the Permittee shall record the following:<br><br>1)The time at which the unit started operating at a load greater than base load<br>2)The time at which the unit load dropped back to base load (or lower)<br>3)The duration of peak load operation<br>4)The reason for operating at peak load*<br><br>*The Permittee must maintain a record of the reason for operating at peak load (for example a notice from PJM that requires the turbine to be operated at that specific time) 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)] | None. |
| 4 | Do not exceed 250 ppmvd CO at 15% Oxygen. CO <= 250 ppmvd @ 15% O2. [N.J.A.C. 7:27-16.9(b)] | CO: Monitored by continuous emission monitoring system continuously, based on one calendar day average. [N.J.A.C. 7:27-16.9(h)] | Other: Data Acquisition System (DAS)/Electronic Data Storage. Continuously.[N.J.A.C. 7:27-16.9(h)]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 5 | VOC (Total) <= 50 ppmvd @ 15% O2. [N.J.A.C. 7:27-16.9(c)] | None. | None. | None. |
| 6 | This turbine shall comply with all applicable requirements at N.J.A.C.7:27-19.5, including, but not limited to all applicable emission limitations. [N.J.A.C. 7:27-19.5] | None. | None. | None. |
| 7 | The Permittee shall adjust the combustion process in accordance with N.J.A.C. 7:27-19.16. Adjustment of the combustion process shall be carried out according to manufacturer's recommended procedures and maintenance schedules for each turbine. [N.J.A.C. 7:27-16.9(f)2, N.J.A.C. 7:27-19.5(e)2] & [N.J.A.C. 7:27-19.16(g)] | Monitored by continuous emission monitoring system continuously Or Periodic Emission Monitoring. [N.J.A.C. 7:27-19.16(h)] | Recordkeeping by data acquisition system (DAS) / electronic data storage upon performing combustion adjustment or manual logging of parameter upon performing combustion adjustment. The records should be kept in a permanent form suitable for inspections.<br>The owner or operator shall record the following information for each adjustment:<br><br>1. The date of the adjustment and the times at which it began and ended;<br><br>2. The name, title and affiliation of the person who performed the procedure and adjustment;<br><br>3. The type of procedure and maintenance performed;<br><br>4. The concentration of NOx, CO and O2 measured before and after the adjustment was made; and<br><br>5. The type and amount of fuel used over the 12 months prior to the adjustment.<br><br>The owner or operator shall keep records of the manufacturer's recommended procedures and maintenance schedules for each turbine. [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 |
|---|---|---|---|---|
| 8 | An exceedance of an emission limit that occurs during an adjustment of the combustion process under N.J.A.C. 7:27-19.16(g) is not a violation of this subchapter if it occurs as a result of the adjustment. After the combustion adjustment has been completed, the maximum emission rate of any contaminant shall not exceed the maximum allowable emission rate applicable under this subchapter or under an operating permit issued pursuant to N.J.A.C. 7:27-22 or an applicable certificate issued pursuant to N.J.A.C. 7:27-8. [N.J.A.C. 7:27-19.16(f)] | None. | None. | None. |
| 9 | VOC (Total) <= 3.1 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas,<br>Y = Natural Gas combusted 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. Record emissions for the month and sum of the emissions during the previous 11 months. [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 |
|---|---|---|---|---|
| 10 | NOx (Total) <= 102.3 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using NOx CEM and F factors specified in 40 CFR 60, Appendix A, Method 19.<br><br>During periods when valid data is not being recorded by the CEM (CEM downtime), missing or invalid data shall be replaced with representative data in accordance with the missing data provisions of 40 CFR Part 75. [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 11 | CO <= 418.4 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using CO CEM and F factors specified in 40 CFR 60, Appendix A, Method 19.<br><br>During periods when valid data is not being recorded by the CEM (CEM downtime), the CO CEM downtime emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors (see calculation below) and then added to the emissions calculated using CEM data.<br><br>CO CEM downtime emissions (tpy) = {X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton))<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted during the CEM downtime. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record emissions for the month and sum of the emissions during the previous 11 months. [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 |
|---|---|---|---|---|
| 12 | SO2 <= 1.11 tons/yr. Annual emission limit based on maximum annual fuel use. This emission limit is based on natural gas fuel use and 40 CFR 75 emission factor (0.0006 lb/MMBtu). [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= 0.0006<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 13 | TSP <= 13.02 tons/yr. Annual emission limit based on maximum annual fuel use. [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas,<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [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 |
|---|---|---|---|---|
| 14 | PM-10 (Total) <= 8.89 tons/yr. [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 15 | PM-2.5 (Total) <= 8.89 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitoring for PM-10 shall satisfy the PM-2.5 monitoring requirement.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping for PM-10 shall satisfy the PM-2.5 recordkeeping requirement.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 16 | Methane <= 4.08 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 17 | Nitrous oxide <= 0.41 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 18 | Combustion turbine fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)] | None. | Other: Keep records of Invoices/ Bills of lading showing materials delivered. Per Delivery.[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 | Natural Gas Usage <= 3,630 MMft^3 /any consecutive 365 days for each turbine.<br><br>Fuel consumption per 365 consecutive days shall be calculated by the sum of the fuel consumed during any one day added to the sum of the fuel consumed during the preceding 364 days.<br><br>This procedure will begin with the first day following the issuance of the Operating Permit. This accounting will not include oil consumption for the days prior to the operating permit approval. [N.J.A.C. 7:27-22.16(e)] | Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). [N.J.A.C. 7:27-22.16(o)] | Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously , compliance shall be based on a 365 consecutive day period computed with daily sums. [N.J.A.C. 7:27-22.16(o)] | None. |
| 20 | Maximum Gross Heat Input <= 985.68 MMBTU/hr. [N.J.A.C. 7:27-22.16(e)] | 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. |
| 21 | Acetaldehyde <= 0.0741 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 22 | Acrolein <= 0.0119 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 23 | Benzene <= 0.0222 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 24 | Butadiene (1,3-) <= 0.0008 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Butadiene (1,3-): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 25 | Ethylbenzene <= 0.06 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 26 | Formaldehyde <= 0.0315 tons/yr. [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 records of calculations based on 40 CFR 61.54(d) once initially. Keep records of calculations. [N.J.A.C. 7:27-22.16(o)] | None. |
| 27 | Naphthalene <= 0.00241 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[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 | Polycyclic organic matter <= 0.0041 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 29 | Propylene oxide <= 0.054 tons/yr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 30 | The permittee shall submit an Excess Emissions and Monitoring Systems Performance Report to the appropriate Regional Enforcement Office (REO) for review and approval. This report shall be submitted to the REO whether or not an emission exceedance has occurred. [N.J.A.C. 7:27-22.16(a)] | None. | None. | 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 for review and approval. [N.J.A.C. 7:27-22.16(o)] |
| 31 | The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit. This QA/QC plan shall incorporate at a minimum those procedures outlined in 40 CFR, Part 60, Appendix F and/or 40 CFR, Part 75, Appendix B for CEMS and those procedures outlined in 40 CFR, Part 60, Appendix B, Specification One and 40 CFR, Part 51, Proposed RM 203 for COMS, published Department Technical Manuals or other procedures approved in writing by the Department. The QA/QC plan shall designate a coordinator for the facility who is responsible to ensure that the QA/QC plan is implemented. The Department reserves the right to require the QA/QC plan to be revised at any time based on the results of quarterly EEMPR reviews, inspections, audits or any other information available to the Department. All procedures outlined in the QA/QC plan shall commence upon the completion date of the PST. All redundant CEMS/COMS must undergo the QA/QC procedure. [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 date and quarterly reports. [N.J.A.C. 7:27-22.16(o)]. | 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). All quarterly and annual QA data shall be included in quarterly EEMPR reports and kept on file at the facility. The QA data must be made available to the Department upon request. Any changes to the QA/QC plan shall be submitted in writing to the Supervisor/CEMS Program of the Emission Measurement Section. [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 |
|---|---|---|---|---|
| 32 | Acid Rain: Comply with the requirements contained in the attached Acid Rain permit. See Appendix I. [40 CFR 72] | Other: Comply with the requirements contained in the attached Acid Rain permit. See Appendix I.[40 CFR 72]. | Other: Comply with the requirements contained in the attached Acid Rain permit. See Appendix I.[40 CFR 72]. | Comply with the requirement: Upon occurrence of event. Comply with the requirements contained in the attached Acid Rain permit. See Appendix I. [40 CFR 72] |
| 33 | The permittee shall comply with all applicable requirements of Cross-State Air Pollution Rule (CSAPR) for the CSAPR NOx Annual Trading Program, CSAPR NOx Ozone Season Trading Program, and CSAPR SO2 Trading Program applicable to this affected unit. [40 CFR 97] | Other: As per the applicable requirement.[40 CFR 97]. | Other: As per the applicable requirement.[40 CFR 97]. | Other (provide description): Other. As per the applicable requirement. [40 CFR 97] |

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

**Emission Unit:** **U2210 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS3 CT 4 PNG FIRED, COMBINED CYCLE, HRSG**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 %. Visible emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Opacity <= 10 %. At all times the combustion turbine is operating, except during start-up and shutdown, visible emissions exclusive of visible condensed water vapor shall not exceed 10% opacity for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 3 | Particulate emission limit from the combustion of fuel based on rated heat input of source. Particulate Emissions <= 98.6 lb/hr. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 4 | NOx (Total) <= 0.75 lb/MW-hr. 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)1] | 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 System (CEMS) Requirement" in OS Summary.<br><br>Note: Only periods of combined cycle operation will be used to demonstrate compliance with this limit. [N.J.A.C. 7:27-19.15(a)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "Continuous Emission Monitoring System (CEMS) Requirement" in OS Summary.<br><br>Note: Only periods of combined cycle operation will be used to demonstrate compliance with this limit. [N.J.A.C. 7:27-22.16(o)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. (See CEMS and QA/QC requirements in OS Summary). [N.J.A.C. 7:27-22.16(o)] |
| 5 | VOC (Total) <= 1.31 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 6 | VOC (Total) <= 10 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 7 | VOC (Total) <= 0.0017 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 8 | NOx (Total) <= 54.5 lb/hr. [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. [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 9 | CO <= 198 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 10 | CO <= 100 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 11 | CO <= 0.226 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 12 | TSP <= 6.93 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 13 | PM-10 (Total) <= 4.73 lb/hr based on the initial PM-10 stack emission testing. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 14 | PM-2.5 (Total) <= 4.73 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 15 | SO2 <= 0.59 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitor by calculations (with sulfur content, heating value and per hour usage of natural gas) in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain records in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 16 | Methane <= 2.17 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 17 | Nitrous oxide <= 0.22 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 18 | Acetaldehyde <= 0.04 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[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 | Acrolein <= 0.0063 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 20 | Benzene <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 21 | Butadiene (1,3-) <= 0.000424 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Butadiene (1,3-): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 22 | Ethylbenzene <= 0.032 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 23 | Formaldehyde <= 0.017 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 24 | Naphthalene <= 0.0013 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 25 | Polycyclic organic matter <= 0.0022 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 26 | Propylene oxide <= 0.029 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 27 | N.J.A.C. 7:27 -22.16 steady state emission limits specified in this operating scenario, for the turbine, are not applicable during periods of startup or shutdown, as defined in OS5 & OS6. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

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

**Emission Unit:** **U2210 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS4 CT 4 PNG FIRED, SIMPLE CYCLE, BY-PASS**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 %. Visible emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Opacity <= 10 %. At all times the combustion turbine is operating, except during start-up and shutdown, visible emissions exclusive of visible condensed water vapor shall not exceed 10% opacity for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 3 | Particulate emission limit from the combustion of fuel based on rated heat input of source. Particulate Emissions <= 98.6 lb/hr. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 4 | NOx (Total) <= 1 lb/MW-hr. 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)1] | 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 System (CEMS) Requirement" in OS Summary.<br><br>Note: Only periods of simple cycle operation will be used to demonstrate compliance with this limit. [N.J.A.C. 7:27-19.15(a)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See "Continuous Emission Monitoring System (CEMS) Requirement" in OS Summary.<br><br>Note: Only periods of simple cycle operation will be used to demonstrate compliance with this limit. [N.J.A.C. 7:27-22.16(o)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. (See CEMS and QA/QC requirements in OS Summary). [N.J.A.C. 7:27-22.16(o)] |
| 5 | VOC (Total) <= 1.31 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 6 | VOC (Total) <= 10 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 7 | VOC (Total) <= 0.0017 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 8 | NOx (Total) <= 54.5 lb/hr. [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. [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 9 | CO <= 198 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 10 | CO <= 100 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 11 | CO <= 0.226 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] | None. |
| 12 | TSP <= 6.93 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 13 | PM-10 (Total) <= 4.73 lb/hr based on the initial PM-10 stack emission testing. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 14 | PM-2.5 (Total) <= 4.73 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 15 | SO2 <= 0.59 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitor by calculations (with sulfur content, heating value and per hour usage of natural gas) in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain records in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 16 | Methane <= 2.17 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 17 | Nitrous oxide <= 0.22 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 18 | Acetaldehyde <= 0.04 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[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 | Acrolein <= 0.0063 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 20 | Benzene <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 21 | Butadiene (1,3-) <= 0.000424 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Butadiene (1,3-): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 22 | Ethylbenzene <= 0.032 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 23 | Formaldehyde <= 0.017 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 24 | Naphthalene <= 0.0013 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 25 | Polycyclic organic matter <= 0.0022 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 26 | Propylene oxide <= 0.029 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 27 | N.J.A.C. 7:27 -22.16 steady state emission limits specified in this operating scenario, for the turbine, are not applicable during periods of startup or shutdown, as defined in OS5 & OS6. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

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

**Emission Unit:** **U2210 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS5 Start-up**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Start-up Period <= 60 minutes. Start-up is the period of time from ignition until the unit, along with associated emission and operation controls, achieves steady state at 80 to 100% load conditions. Start-up shall not exceed 60 minutes. [N.J.A.C. 7:27-22.16(e)] | Start-up Period: Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Other: Data Acquisition System (DAS)/Electronic Data Storage. Per occurrence.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 6.55 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 174 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 495 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2210 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS6 Shut-down**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Shutdown Period <= 60 minutes. Shutdown is the period of time from the initial lowering of combustion turbine output to the cessation of combustion turbine operation. Shutdown shall not exceed 60 minutes. [N.J.A.C. 7:27-22.16(e)] | Shutdown Period: Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Other: Data Acquisition System (DAS)/Electronic Data Storage. Per occurrence.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 6.55 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 174 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 495 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2211 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS3 CT 5 GAS FIRED, COMBINED CYCLE**

The requirements for this item are identical to those for: U2210 OS3

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

**Emission Unit:** **U2211 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS4 CT 5 GAS FIRED, SIMPLE CYCLE**

The requirements for this item are identical to those for: U2210 OS4

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

**Emission Unit:** **U2211 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS5 Start-up**

The requirements for this item are identical to those for: U2210 OS5

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

**Emission Unit:** **U2211 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS6 Shutdown**

The requirements for this item are identical to those for: U2210 OS6

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

**Emission Unit:** **U2212 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS3 CT PNG FIRED, COMBINED CYCLE, HRSG**

The requirements for this item are identical to those for: U2210 OS3

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

**Emission Unit:** **U2212 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS4 CT PNG FIRED, SIMPLE CYCLE, BY-PASS**

The requirements for this item are identical to those for: U2210 OS4

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

**Emission Unit:** **U2212 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS5 Start-up**

The requirements for this item are identical to those for: U2210 OS5

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

**Emission Unit:** **U2212 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS6 Shutdown**

The requirements for this item are identical to those for: U2210 OS6

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

**Emission Unit:** **U2213 Combined Cycle Unit with Heat Recovery Steam Generator**
**Operating Scenario:** **OS3 CT 7 GAS FIRED, COMBINED CYCLE, HRSG**

The requirements for this item are identical to those for: U2210 OS3

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

**Emission Unit:** **U2213 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS4 CT 7 GAS FIRED, SIMPLE CYCLE, BY-PASS**

The requirements for this item are identical to those for: U2210 OS4

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

**Emission Unit:** **U2213 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS5 Start-up**

The requirements for this item are identical to those for: U2210 OS5

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

**Emission Unit:** **U2213 Combined Cycle Unit with Heat Recovery Steam Generator**

**Operating Scenario:** **OS6 Shutdown**

The requirements for this item are identical to those for: U2210 OS6

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Summary of Applicable Federal Regulations:<br>40 CFR Part 60: Subpart A<br>40 CFR Part 60: Subpart GG<br>40 CFR Part 72: Acid Rain<br>40 CFR Part 97: Cross-State Air Pollution Rule (CSAPR). [40 CFR Federal Rules Summary] | None. | None. | None. |
| 2 | CO <= 250 ppmvd @ 15% O2 Do not exceed 250 ppmvd CO at 15% Oxygen. [N.J.A.C. 7:27-16.9(b)] | Other: Continuous Emissions Monitor based on a one calendar day block average and Stack Emission Testing based on the average of three Department validated test runs. (See Applicable Requirement for GR1).[N.J.A.C. 7:27-16.9(b)]. | Other: Data Acquisition System (DAS)/Electronic Data Storage and Stack Test Results (See Applicable Requirement for GR1).[N.J.A.C. 7:27-16.9(b)]. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-16.9(b)] |
| 3 | VOC (Total) <= 50 ppmvd @ 15% O2 (See Applicable Requirement for GR1). [N.J.A.C. 7:27-16.9(c)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (See Applicable Requirement for GR1). [N.J.A.C. 7:27-16.9(c)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (See Applicable Requirement for GR1). [N.J.A.C. 7:27-16.9(c)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-16.9(c)] |
| 4 | This turbine shall comply with all applicable requirements at N.J.A.C.7:27-19.5, including, but not limited to all applicable emission limitations. [N.J.A.C. 7:27-19.5] | None. | None. | None. |
| 5 | 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. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 6 | The Permittee shall adjust the combustion process in accordance with N.J.A.C. 7:27-19.16. Adjustment of the combustion process shall be carried out according to manufacturer's recommended procedures and maintenance schedules for each turbine. [N.J.A.C. 7:27-16.9(f)2, N.J.A.C. 7:27-19.5(e)2] & [N.J.A.C. 7:27-19.16(g)] | Monitored by continuous emission monitoring system continuously or Periodic Emission Monitoring. [N.J.A.C. 7:27-19.16(h)] | Recordkeeping by data acquisition system (DAS) / electronic data storage upon performing combustion adjustment or manual logging of parameter upon performing combustion adjustment. The records should be kept in a permanent form suitable for inspections.<br>The owner or operator shall record the following information for each adjustment:<br><br>1. The date of the adjustment and the times at which it began and ended;<br><br>2. The name, title and affiliation of the person who performed the procedure and adjustment;<br><br>3. The type of procedure and maintenance performed;<br><br>4. The concentration of NOx, CO and O2 measured before and after the adjustment was made; and<br><br>5. The type and amount of fuel used over the 12 months prior to the adjustment.<br><br>The owner or operator shall record the manufacturer's recommended procedures and maintenance schedules for each turbine. [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 |
|---|---|---|---|---|
| 7 | VOC (Total) <= 25.7 tons/yr Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted 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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 8 | NOx (Total) <= 79.1 tons/yr Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using NOx CEM and F factors specified in 40 CFR 60, Appendix A, Method 19.<br><br>During periods when valid data is not being recorded by the CEM (CEM downtime), missing or invalid data shall be replaced with representative data in accordance with the missing data provisions of 40 CFR Part 75. [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record emissions for the month and sum of the emissions during the previous 11 months. [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 | CO <= 91.1 tons/yr Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using CO CEM and F factors specified in 40 CFR 60, Appendix A, Method 19.<br><br>During periods when valid data is not being recorded by the CEM (CEM downtime), the CO CEM downtime emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors (see calculation below) and then added to the emissions calculated using CEM data.<br><br>CO CEM downtime emissions (tpy) = ({X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton))<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted during the CEM downtime. [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record emissions for the month and sum of the emissions during the previous 11 months. [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 |
|---|---|---|---|---|
| 10 | SO2 <= 0.53 tons/yr. Annual emission limit based on maximum annual fuel use. This emission limit is based on combustion of 0.0015% sulfur (ULSD) fuel oil. Since the Permittee will continue to combust any higher sulfur fuel oil that remains in the fuel storage tank on June 10, 2009 and this remaining fuel may mix with the ULSD fuel, creating a fuel mixture with an aggregate sulfur content higher than 0.0015%, this requirement does not apply until the calendar year after fuel tank sampling (see Ref #15) demonstrates that the aggregate sulfur content of the fuel in fuel tank is no more than 0.0015%.<br><br>Once fuel tank sampling demonstrates that the aggregate sulfur content of the fuel oil stored in tanks 8A, 8B, 8C has dropped to 0.0015%, during the following calendar year, this permit requirement replaces Ref #14 (the 0.05% sulfur distillate fuel based SO2 emission limit) as the effective annual SO2 emission limit for this turbine at this facility. [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= 0.0006<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 11 | SO2 <= 17.8 tons/yr. Annual emission limit based on maximum annual fuel use. This emission limit is based on combustion of 0.05% sulfur fuel oil and is the maximum emission rate from preconstruction permit. [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X = 0.0006<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [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 |
|---|---|---|---|---|
| 12 | TSP <= 7.5 tons/yr Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 13 | PM-10 (Total) <= 8.3 tons/yr. [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). The annual emissions shall be calculated using actual fuel consumption and lb/MMBtu emission factors as follows:<br><br>Annual emissions (tpy) = [{X(lb/MMBtu) * Y(MMScf/month)} * 1040 (MMBtu/MMScf) / 2000 (lb/ton)] + Emissions for previous 11 months<br><br>Where:<br>X= The average lb/MMBtu emission rate for the turbine combusting natural gas, determined by the most recent stack test.<br>Y = Natural Gas combusted during the month. [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. Record emissions for the month and sum of the emissions during the previous 11 months. [N.J.A.C. 7:27-22.16(o)] | None. |
| 14 | PM-2.5 (Total) <= 8.3 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitoring for PM-10 shall satisfy the PM-2.5 monitoring requirement.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping for PM-10 shall satisfy the PM-2.5 recordkeeping requirement.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 15 | Pb <= 0.0013 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | Pb: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[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 |
|---|---|---|---|---|
| 16 | Sulfur Content in Fuel: Since the Permittee will continue to combust any higher sulfur distillate fuel oil that remains in the fuel storage tank after June 10, 2009 and this remaining fuel may mix with the ULSD fuel, creating a fuel mixture with an aggregate sulfur content higher than that of the lower sulfur fuel, the permittee shall conduct composite sampling of each storage tank after reciept of every fuel lot delivered to the facility. A fuel lot is defined as a shipment or delivery (ship, barge, a group of trucks, or discrete purchase of diesel fuel through a pipeline). Sampling shall continue until the aggregate sulfur content of the fuel in tanks 8A, 8B, and 8C is 0.0015% or less.<br><br>Once sampling of the storage tank demonstrates that the aggregate sulfur content of the fuel oil stored in tanks 8A, 8B, and 8C has dropped to 0.0015%, the applicable annual SO2 emission limit for any turbine at this facility shall be based on 0.0015% sulfur fuel (ULSD) instead of 0.05% sulfur fuel. See Ref #10 and #11. [40 CFR 75, Appendix D, Section 2.2] and [N.J.A.C. 7:27-22.16(a)] | Other: Monitored by a sample from each oil tank after each additional fuel lot is delivered. Sample according to the single tank composite sampling procedure or all levels sampling procedure in ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products.<br><br>Once the applicable requirement of this condition is satisfied, fuel oil sampling shall be in accordance with 40 CFR 75, Appendix D, Section 2.2, for purposes of demonstrating compliance for reporting SO2 and NOx mass emissions.[N.J.A.C. 7:27-22.16(o)]. | Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. [N.J.A.C. 7:27-22.16(o)] | None. |
| 17 | The water injection system for the combustion turbine shall be operating at all times that the combustion turbine is combusting No. 2 fuel oil or lighter distillate oil except during start-up and shut-down periods. Also, dry low NOx combustors shall be operating all times during natural gas combustion except during start-up and shut-down periods. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 18 | Combustion turbine fuel limited to distillate oil or natural gas. Distillate oil includes #2 fuel oil, diesel oil, kerosene, or a mixture of these distillate products. [N.J.A.C. 7:27-22.16(e)] | None. | Other: Keep records of invoices/bills of lading showing materials delivered. Per Delivery.[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 | The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit. This QA/QC plan shall incorporate at a minimum those procedures outlined in 40 CFR, Part 60, Appendix F and/or 40 CFR, Part 75, Appendix B for CEMS and those procedures outlined in 40 CFR, Part 60, Appendix B, Specification One and 40 CFR, Part 51, Proposed RM 203 for COMS, published Department Technical Manuals or other procedures approved in writing by the Department. The QA/QC plan shall designate a coordinator for the facility who is responsible to ensure that the QA/QC plan is implemented. The Department reserves the right to require the QA/QC plan to be revised at any time based on the results of quarterly EEMPR reviews, inspections, audits or any other information available to the Department. All procedures outlined in the QA/QC plan shall commence upon the completion date of the PST. All redundant CEMS/COMS must undergo the QA/QC procedure. [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 date and quarterly reports. [N.J.A.C. 7:27-22.16(o)]. | 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). All quarterly and annual QA data shall be included in quarterly EEMPR reports and kept on file at the facility. The QA data must be made available to the Department upon request. Any changes to the QA/QC plan shall be submitted in writing to the Supervisor/CEMS Program of the Emission Measurement Section. [N.J.A.C. 7:27-22.16(o)] |
| 20 | Annual fuel use limit for distillate oil is 4.331 MMGal/any consecutive 365 days.<br><br>Fuel consumption per 365 consecutive days shall be calculated by the sum of the fuel consumed during any one day added to the sum of the fuel consumed during the preceding 364 day period. [N.J.A.C. 7:27-22.16(e)] | Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on a 365 consecutive day period computed with daily sums. [N.J.A.C. 7:27-22.16(o)] | None. |
| 21 | Water-to-Fuel Ratio: Operate and maintain a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to +/-5.0% and approved by the Administrator. [N.J.A.C. 7:27-22.16(e)] | Other: Acid Rain CEMS will be used in lieu of water-to-fuel ratio monitoring. Monitor in accordance with 40 CFR 75 per EPA approval letter dated May 4, 2000.[N.J.A.C. 7:27-22.16(e)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(e)]. | None. |
| 22 | Methane <= 1.85 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

U2323 Combustion turbine - simple cycle

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 23 | Nitrous oxide <= 0.185 tons/yr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 24 | Acrolein <= 0.0054 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 25 | Acetaldehyde <= 0.034 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(a)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 26 | Arsenic Emissions <= 0.00044 tons/yr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 27 | Benzene <= 0.0266 tons/yr. Annual emission limit based on maximum annual fuel use. [N.J.A.C. 7:27-22.16(a)] | Benzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 28 | Beryllium Emissions <= 0.00012 tons/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 29 | Butadiene (1,3-) <= 0.0052 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Butadiene (1,3-): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(a)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 30 | Cadmium Emissions <= 0.0007 tons/yr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 31 | Chromium (Hexavalent) Emissions <= 0.0000234 tons/yr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 32 | Ethylbenzene <= 0.027 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 33 | Formaldehyde <= 0.099 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 34 | Naphthalene <= 0.0116 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 35 | Nickel Emissions <= 0.106 tons/yr. Annual emission limit based on maximum annual fuel use. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 36 | Polycyclic organic matter <= 0.014 tons/yr. [N.J.A.C. 7:27-22.16(a)] | Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[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 |
|---|---|---|---|---|
| 37 | Propylene oxide <= 0.0243 tons/yr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 38 | Annual fuel use limit for natural gas is 1643 MMSCF/any consecutive 365 days.<br><br>Fuel consumption per 365 consecutive days shall be calculated by the sum of the fuel consumed during any one day added to the sum of the fuel consumed during the preceding 364 days. [N.J.A.C. 7:27-22.16(e)] | Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on 365 consecutive day period. [N.J.A.C. 7:27-22.16(o)] | None. |
| 39 | Fuel deliveries limited to ultra low sulfur distillate oil (ULSD). [sulfur content <= 15 ppm].<br><br>On and after June 10, 2009, no delivery of fuel that does not meet the ASTM D975-08ae1 Standard Specification for Diesel Fuel Oils/Grade No. 1-D S15, or Grade No. 2-D S15 (ultra low sulfur distillate fuel oil (ULSD)) may be accepted. Any non - ULSD fuel oil remaining in fuel oil storage tanks may be used up after this date. [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. |
| 40 | The permittee shall submit an Excess Emissions and Monitoring Systems Performance Report to the appropriate Regional Enforcement Office (REO) for review and approval. This report shall be submitted to the REO whether or not an emission exceedance has occurred. [N.J.A.C. 7:27-22.16(a)] | None. | None. | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): 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 through the NJDEP online EEMPR web portal for review and approval. [N.J.A.C. 7:27-22.16(a)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 41 | This turbine shall only be operated at peak load under the following conditions:<br><br>1)The annual PJM required summer and winter load verification tests.<br>2)During a MEG alert, which is a period of time during which one or more electric generating units are operated at emergency capacity at the direction of the load dispatcher, PJM, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both.<br><br>During all other periods of operation, this turbine must be operated at a load no greater than maximum base load (as determined by a base load temperature control curve). Stack testing shall be performed at maximum base load as well (See GR1). [N.J.A.C. 7:27-22.16(a)] | Monitored by hour/time monitor continuously. The permittee shall monitor the duration of time that the turbine is operated at peak load. [N.J.A.C. 7:27-22.16(o)] | Each time this turbine is operated at peak load, the Permittee shall record the following:<br><br>1)The time at which the unit starting operating at a load greater than base load<br>2)The time at which the unit load dropped back to base load (or lower)<br>3)The duration of peak load operation<br>4)The reason for operating at peak load*<br><br>*The Permittee must maintain a record of the reason for operating at peak load (for example a notice from PJM that requires the turbine to be operated at that specific time). Recordkeeping by manual logging of parameter or sorting data in acomputer data system upon occurence of event. 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)] | None. |
| 42 | Conduct Periodic Emission Monitoring and Reference Method Stack Testing as per the requirements in GR1 and monitoring schedule in Appendix III and IV. [N.J.A.C. 7:27-22.16(a)] | Other: See GR1 for requirements[N.J.A.C. 7:27-22.16(o)]. | Other: See GR1 for requirements[N.J.A.C. 7:27-22.16(o)]. | Other (provide description): Other See GR1 for requirements. [N.J.A.C. 7:27-22.16(o)] |
| 43 | 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: Region II, Director, Air and Waste Management Division, US Environmental Protection Agency, 21st Floor, 290 Broadway, New York, NY 10007. [40 CFR 60.4(a)] | None. | None. | Submit a report: As per the approved schedule to EPA Region II as required by 40 CFR 60. [40 CFR 60.4(a)] |
| 44 | Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)] | None. | None. | Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 45 | 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 II and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)] |
| 46 | 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 data acquisition system (DAS) / electronic data storage upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)] | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 47 | 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)] |
| 48 | 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. [40 CFR 60.7(f)]. | None. |
| 49 | The NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in this permit. [40 CFR 60.11(c)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 50 | 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. |
| 51 | 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. |
| 52 | 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. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 53 | Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems 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. |
| 54 | 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 |
|---|---|---|---|---|
| 55 | The owner or operator shall reduce all continuous monitoring systems (other than opacity) data to 1-hour averages which shall be computed from four or more data points equally spaced over each 1-hour period. 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. For owners and operators complying with the requirements in 40 CFR 60.7(f)(1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng of pollutant per J of heat input). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in 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 subparts to specify the emission limit (e.g. rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)] | None. | Other: See Applicable Requirement. [40 CFR 60.13(h)]. | None. |
| 56 | NOx (Total) <= 97 ppmvd @ 15% O2. [40 CFR 60.332(a)(1)] | Other: Monitored by continuous emission monitor continuously and stack emission testing, based on the average of three 1-hour tests. Test methods and procedures shall be consistent with the requirements of 40 CFR Part 60.335. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Performance testing is not required for any emergency fuel as defined in 40 CFR 60.331.[40 CFR 60.335]. | Other: Data acquisition system (DAS) / Electronic data storage and Stack test results. (See applicable requirement for PT23).[40 CFR 60.332(a)(1)]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 57 | The owner or operator may, as alternative to operating the continuous monitoring system described in 40 CFR 60.334(a), install, certify, maintain operate, and quality-assure a continuous monitoring system (CEMS) consisting of NOx and O2 monitors. As an alternative, a CO2 monitor may be used to adjust the measured NOx concentrations. Each CEMS must be installed and certified according to PS 2 and 3 of 40 CFR Part 60 Appendix B. If the owner or operator has installed a NOx CEMS to meet the requirements 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, the CEMS may be used to meet the requirements of this section. If CEMS in conformance with 40 CFR Part 75 is used, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report. [40 CFR 60.334(b)] | Monitored by continuous emission monitor continuously. [40 CFR 60.334] | None. | None. |

## 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 submit reports of excess emissions and monitor downtime for Nitrogen oxides. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined in 40 CFR 60.334(j)(1)(i) or (iii) as follows: (i) for turbines using water or steam to fuel ratio monitoring - any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio determined by the performance test (40 CFR 60.8) to demonstrate compliance with the NOx concentration limit specified in 60.332; Any unit operating hour in which no water or steam is injected shall also be considered an excess emissions; or (iii) for turbines using NOx and diluent CEMS - any unit operating hour during which the 4-hour rolling average NOx concentration exceeds the applicable NOx emission limit specified in 60.332. [40 CFR 60.334(j)(1)] | 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. Each report shall include the average steam or water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, as applicable and, (if applicable) the nitrogen content of the fuel during each excess emission. Pursuant to 40 CFR 60.334(j)5, all reports shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.334(j)(1)] |
| 59 | The owner or operator shall submit reports of excess emissions and monitor downtime for Sulfur dioxide. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined in 40 CFR 60.334(j)(2). [40 CFR 60.334(j)(2)] | 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. Pursuant to 40 CFR 60.334(j)5, all reports shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.334(j)(2)] |
| 60 | Acid Rain: Comply with the requirements contained in the attached Acid Rain Permit. See Appendix 1. [40 CFR 72] | Other: Comply with the requirements contained in the attached Acid Rain Permit. See Appendix 1.[40 CFR 72]. | Other: Comply with the requirements contained in the attached Acid Rain Permit. See Appendix 1.[40 CFR 72]. | Comply with the requirement: Upon occurrence of event. Comply with the requirements contained in the attached Acid Rain Permit. See Appendix 1. [40 CFR 72] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 61 | The permittee shall comply with all applicable requirements of Cross-State Air Pollution Rule (CSAPR) for the CSAPR NOx Annual Trading Program, CSAPR NOx Ozone Season Trading Program, and CSAPR SO2 Trading Program applicable to this affected unit. [40 CFR 97] | Other: As per the applicable requirement.[40 CFR 97]. | Other: As per the applicable requirement.[40 CFR 97]. | Other (provide description): Other. As per the applicable requirement. [40 CFR 97] |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS1 GAS, > 80% LOAD**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 % Smoke emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Opacity <= 10 %. Smoke emissions from stationary internal engine 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(e)] | None. | None. | None. |
| 3 | Particulate Emissions <= 179.6 lb/hr Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 4 | NOx (Total) <= 1 lb/MW-hr. 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)1] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements 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 |
|---|---|---|---|---|
| 5 | VOC (Total) <= 14 lb/hr. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 6 | VOC (Total) <= 6 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 7 | VOC (Total) <= 0.008 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 8 | NOx (Total) <= 164 lb/hr. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 9 | NOx (Total) <= 25 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 10 | NOx (Total) <= 0.091 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 11 | CO <= 100 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 12 | CO <= 25 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 13 | CO <= 0.056 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 14 | SO2 <= 1 lb/hr. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other (provide description): As per the approved schedule , comply with 40 CFR 75. [N.J.A.C. 7:27-22.16(o)] |
| 15 | SO2 <= 0.009 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other (provide description): As per the approved schedule , comply with 40 CFR 75. [N.J.A.C. 7:27-22.16(o)] |
| 16 | TSP <= 16 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 17 | TSP <= 0.009 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 18 | PM-10 (Total) <= 17.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 19 | PM-2.5 (Total) <= 17.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 20 | Methane <= 3.96 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

U2323 Combustion turbine - simple cycle
OS1

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 21 | Nitrous oxide <= 0.4 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 22 | Maximum Gross Heat Input <= 1,796 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | Other: 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. |
| 23 | Acetaldehyde <= 0.072 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(a)] | Acetaldehyde: Recordkeeping by ds of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 24 | Acrolein <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 25 | Benzene <= 0.022 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 26 | Butadiene (1,3-) <= 0.0008 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Butadiene (1,3-): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(a)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 27 | Ethylbenzene <= 0.06 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 28 | Formaldehyde <= 0.031 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 29 | Naphthalene <= 0.002335 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 30 | Polycyclic organic matter <= 0.004 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 31 | Propylene oxide <= 0.0521 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 32 | The owner or operator may elect not to monitor nitrogen content of the fuel being fired in the turbine if the owner or operator does not claim an allowance for fuel bound nitrogen. [40 CFR 60.334(h)(2)] | None. | None. | Other (provide description): Once initially The owner or operator does not claim an allowance for fuel bound nitrogen. The allowable NOx emission concentration included in this permit was calculated in accordance with 40 CFR 60.332(a). In calculations, NOx emission allowance (F-value) of zero was accepted. [40 CFR 60.334(h)(2)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 33 | The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u) regardless of whether an existing custom schedule approved by the Administrator. [40 CFR 60.334(h)(3)] | None. | None. | 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 60.334(h)(3)(i) or (ii) showing the maximum total sulfur content. [40 CFR 60.334(h)(3)] |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS2 OIL, > 80% LOAD**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 % Smoke emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds.<br><br>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27- 3.5] | Other: Periodic Visual Observations. Once every 100 hours of oil firing operation independent of the operating scenario. Visual observations shall be conducted by a certified smoke reader once every 100 hours of oil firing operation. (See Applicable Requirement).[N.J.A.C. 7:27- 3.5]. | Other: Manual Logging of Visual Observations (Permanently Bound). Once every 100 hours of oil firing operation independent of the operating scenario.[N.J.A.C. 7:27- 3.5]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 2 | Opacity <= 10 % At all times the combustion turbine is operating , except during start-up and shutdown, visible emissions exclusive of condensed water vapor shall not exceed 10% opacity for a period of more than 10 consecutive seconds.<br><br>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(e)] | Other: Visual Determination in accordance with N.J.A.C.7:27B-2, every 100 hours of oil firing operation independent of the operating scenario. (See Applicable Requirement).[N.J.A.C. 7:27-22.16(o)]. | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency , every 100 hours of oil firing operation independent of the operating scenario. (See Applicable Requirement). [N.J.A.C. 7:27-22.16(o)] | None. |
| 3 | Particulate Emissions <= 180.9 lb/hr Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 4 | Sulfur Content in Fuel <= 15 ppmw (0.0015 % by weight). Maximum allowable sulfur content in No. 2 and lighter fuel. [N.J.A.C. 7:27- 9.2(a)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 5 | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the effective date of the applicable standard in 1B. [N.J.A.C. 7:27- 9.2(a)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 6 | Sulfur Content in Fuel <= 0.0015 % by weight. Maximum allowable sulfur content in ultra low sulfur distillate fuel oil (ULSD).<br><br>On and after June 10, 2009, no delivery of fuel that does not meet the ASTM D975-08ae1 Standard Specification for Diesel Fuel Oils/Grade No. 1-D S15, or Grade No. 2-D S15 (ultra low sulfur distillate fuel oil (ULSD)) may be accepted. Any non - ULSD fuel oil remaining in fuel oil storage tanks may be used up after this date. [N.J.A.C. 7:27-22.16(a)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)] | None. |
| 7 | Sulfur Content in Fuel: Since the Permittee will continue to combust any higher sulfur distillate fuel oil that remains in the fuel storage tank after June 10, 2009 and this remaining fuel may mix with the ULSD fuel, creating a fuel mixture with an aggregate sulfur content higher than that of the lower sulfur fuel, the permittee shall conduct composite sampling of each storage tank after reciept of every fuel lot delivered to the facility. A fuel lot is defined as a shipment or delivery (ship, barge, a group of trucks, or discrete purchase of diesel fuel through a pipeline). Sampling shall continue until the aggregate sulfur content of the fuel in tanks 8A, 8B, and 8C is 0.0015% or less.<br><br>Once sampling of the storage tank demonstrates that the aggregate sulfur content of the fuel oil stored in tanks 8A, 8B, and 8C has dropped to 0.0015%, the applicable annual SO2 emission limit for any turbine at this facility shall be based on 0.0015% sulfur fuel (ULSD) instead of 0.05% sulfur fuel. See Ref #15 and #16. [40 CFR 75, Appendix D, Section 2.2] and [N.J.A.C. 7:27-22.16(a)] | Other: Monitored by a sample from each oil tank after each additional fuel lot is delivered. Sample according to the single tank composite sampling procedure or all levels sampling procedure in ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products.<br><br>Once the applicable requirement of this condition is satisfied, fuel oil sampling shall be in accordance with 40 CFR 75, Appendix D, Section 2.2. [40 CFR 75, Appendix D, Section 2.2] and[N.J.A.C. 7:27-22.16(o)]. | Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. [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 |
|---|---|---|---|---|
| 8 | SO2 <= 2.82 lb/hr. Hourly emission limit based on maximum hourly fuel use. This emission limit is based on combustion of 0.0015% sulfur (ULSD) fuel oil. This limit is equivalent to 0.0016 lb/MMBtu at the maximum heat input of 1809 MMBtu/hr. Since the Permittee will continue to combust any higher sulfur fuel oil that remains in the fuel storage tank on June 10, 2009 and this remaining fuel may mix with the ULSD fuel, creating a fuel mixture with an aggregate sulfur content higher than 0.0015%, this requirement does not apply until the calendar year after fuel tank sampling (see Ref #14) demonstrates that the aggregate sulfur content of the fuel in fuel tank is no more than 0.0015%.<br><br>Once fuel tank sampling demonstrates that the aggregate sulfur content of the fuel oil stored in tanks 8A, 8B, 8C has dropped to 0.0015%, during the following calendar year, this permit requirement replaces Ref #14 (the 0.05% sulfur distillate fuel based SO2 emission limit) as the effective hourly SO2 emission limit for this turbine at this facility. [N.J.A.C. 7:27-22.16(a)] | Other: Monitor by calculations (with sulfur content, heating value and per hour usage of fuel) in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain records in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 9 | The water injection system for the turbine shall be operating at all times that the combustion turbine is combusting distillate oil, except during start-up and shut-down periods. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 10 | NOx (Total) <= 1 lb/MW-hr. NOx RACT emission limit applies during all periods of turbine operation on High Electric Demand Days (as defined below), during which net useful energy is being produced by the turbine This emission limit applies regardless of the fuel combusted, unless combusting natural gas is not possible due to gas curtailment.<br><br>"High electric demand day" or "HEDD" means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts or higher as predicted by the PJM Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at http://oasis.pjm.com/doc/projload.txt. [N.J.A.C. 7:27-19.5(g)2] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] |
| 11 | NOx (Total) <= 1.6 lb/MW-hr. NOx RACT emission limit applies during all periods of distillate fuel oil combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)1] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements 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 |
|---|---|---|---|---|
| 12 | Sulfur Content in Fuel <= 0.05 % by weight. Maximum allowable sulfur content in distillate fuel oil. [N.J.A.C. 7:27-22.16(e)] | Other: Sulfur content in fuel oil. Per Delivery.[N.J.A.C. 7:27-22.16(o)]. | Other: Keep certificate of analysis showing fuel sulfur content. Per Delivery. The records shall include name and address of supplier, date and quantity received and sulfur content.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 13 | VOC (Total) <= 110 lb/hr. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 14 | VOC (Total) <= 45 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 15 | VOC (Total) <= 0.061 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 16 | Water-to-Fuel Ratio: Operate and maintain a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to +/-5.0% and approved by the Administrator. [N.J.A.C. 7:27-22.16(e)] | Other: Acid Rain CEMS will be used in lieu of water-to fuel ratio monitoring. Monitor in accordance with 40 CFR 75 per EPA approval letter dated May 4, 2000.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 17 | NOx (Total) <= 297 lb/hr. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 18 | NOx (Total) <= 42 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 19 | NOx (Total) <= 0.165 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by stack test results at the approved frequency (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(e)] |
| 20 | CO <= 129 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 21 | CO <= 30 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 22 | CO <= 0.072 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by stack test results at the approved frequency (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 23 | SO2 <= 94 lb/hr. Hourly emission limit based on maximum hourly fuel use. This emission limit is based on combustion of 0.05% sulfur fuel oil and is the maximum emission rate from preconstruction permit. This limit is equivalent to 0.052 lb/MMBtu at the maximum heat input of 1809 MMBtu/hr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitor in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 24 | TSP <= 32 lb/hr. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 25 | TSP <= 0.018 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Other: Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1).[N.J.A.C. 7:27-22.16(o)]. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 26 | PM-10 (Total) <= 8.24 lb/hr. [N.J.A.C. 7:27-22.16(a)] | PM-10 (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 27 | PM-2.5 (Total) <= 8.24 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitoring for PM-10 shall satisfy the PM-2.5 monitoring requirement.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping for PM-10 shall satisfy the PM-2.5 recordkeeping requirement.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 28 | Maximum Gross Heat Input <= 1,809 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | Other: 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. |
| 29 | Methane <= 11.96 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 30 | Nitrous oxide <= 2.39 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 31 | Arsenic Emissions <= 0.00263 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 32 | Benzene <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

U2323 Combustion turbine - simple cycle
OS2

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 33 | Beryllium Emissions <= 0.00071 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 34 | Butadiene (1,3-) <= 0.029 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 35 | Cadmium Emissions <= 0.00423 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 36 | Chromium (Hexavalent) Emissions <= 0.000141 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 37 | Formaldehyde <= 0.51 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 38 | Lead compounds <= 0.008 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 39 | Manganese Emissions <= 0.134 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 40 | Naphthalene <= 0.06332 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 41 | Nickel compounds <= 0.64 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 42 | Polycyclic organic matter <= 0.0724 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 43 | The owner or operator shall monitor the total sulfur content of the fuel being fired in the turbine if the fuel fired in the turbine does not meet the definition of natural gas as provided in 40 CFR 60.331(u). The owner or operator shall use the methods specified in 40 CFR 60.335(b)10. 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 60.334(h)(1)] | Monitored by grab sampling per delivery. Sulfur content values shall be determined on each occasion that fuel is transferred to the storage tank from any other source. If a custom fuel monitoring schedule has previously been approved, the owner or operator may continue monitoring on this schedule without submitting a special petition to the Administrator. [40 CFR 60.334(i)] | 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 60.334(i)] | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 44 | The owner or operator may elect not to monitor nitrogen content of the fuel being fired in the turbine if the owner or operator does not claim an allowance for fuel bound nitrogen. [40 CFR 60.334(h)(2)] | None. | None. | Other (provide description): Once initially The owner or operator does not claim an allowance for fuel bound nitrogen. The allowable NOx emission concentration included in this permit was calculated in accordance with 40 CFR 60.332(a). In calculations, NOx emission allowance (F-value) of zero was accepted. [40 CFR 60.334(h)(2)] |
| 45 | Sulfur Content in Fuel <= 0.8 % by weight. No owner or operator subject to the provisions of this subpart shall burn any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.333(b)] | Sulfur Content in Fuel: Monitored by grab sampling per delivery. Test methods and procedures shall be consistent with the requirements of 40 CFR Part 60.335. A minimum of three fuel samples shall be collected during the performance test. [40 CFR 60.335] | None. | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS3 GAS, < OR= 80% LOAD**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 % Smoke emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 2 | Particulate Emissions <= 143.7 lb/hr Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 3 | NOx (Total) <= 1 lb/MW-hr. 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)1] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] |
| 4 | VOC (Total) <= 28 lb/hr. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 5 | VOC (Total) <= 16 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 6 | VOC (Total) <= 0.04 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 7 | NOx (Total) <= 164 lb/hr. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 8 | NOx (Total) <= 25 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and stack emission testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 9 | NOx (Total) <= 0.091 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [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 | CO <= 155 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 11 | CO <= 50 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 12 | CO <= 0.104 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 13 | SO2 <= 1 lb/hr. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor by calculations (with sulfur content, heating value and per hour usage of natural gas) in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain records in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 14 | SO2 <= 0.009 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other (provide description): As per the approved schedule , comply with 40 CFR 75. [40 CFR 60.333(b)] |
| 15 | TSP <= 16 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 16 | TSP <= 0.009 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 17 | PM-10 (Total) <= 17.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 18 | PM-10 (Total) <= 0.0099 lb/MMBTU. [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 |
|---|---|---|---|---|
| 19 | PM-2.5 (Total) <= 17.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 20 | Maximum Gross Heat Input <= 1,437 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | Other: 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. |
| 21 | Methane <= 3.96 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 22 | Nitrous oxide <= 0.4 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 23 | Acetaldehyde <= 0.072 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 24 | Acrolein <= 0.012 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 25 | Benzene <= 0.022 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 26 | Butadiene (1,3-) <= 0.0008 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 27 | Ethylbenzene <= 0.06 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 28 | Formaldehyde <= 0.031 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 29 | Naphthalene <= 0.002335 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 30 | Polycyclic organic matter <= 0.004 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 31 | Propylene oxide <= 0.0521 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 32 | The owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u) regardless of whether an existing custom schedule approved by the Administrator. [40 CFR 60.334(h)(3)] | None. | None. | 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 60.334(h)(3)(i) or (ii) showing the maximum total sulfur content. [40 CFR 60.334(h)(3)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 33 | The owner or operator may elect not to monitor nitrogen content of the fuel being fired in the turbine if the owner or operator does not claim an allowance for fuel bound nitrogen. [40 CFR 60.334(h)(2)] | None. | None. | Other (provide description): Once initially The owner or operator does not claim an allowance for fuel bound nitrogen. The allowable NOx emission concentration included in this permit was calculated in accordance with 40 CFR 60.332(a). In calculations, NOx emission allowance (F-value) of zero was accepted. [40 CFR 60.334(h)(2)] |
| 34 | Sulfur Content in Fuel <= 0.8 % by weight. No owner or operator subject to the provisions of this subpart shall burn any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.333(b)] | Sulfur Content in Fuel: Monitored by grab sampling at the approved frequency. Test methods and procedures shall be consistent with the requirements of 40 CFR Part 60.335. A minimum of three fuel samples shall be collected during the performance test. [40 CFR 60.335] | None. | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS4 OIL, < OR = 80% LOAD**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Opacity <= 20 % Smoke emissions from stationary turbine engines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds.<br><br>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27- 3.5] | Other: Periodic Visual Observations. Once every 100 hours of oil firing operation independent of the operating scenario. Visual observations shall be conducted by a certified smoke reader once every 100 hours of oil firing operation. (See Applicable Requirement).[N.J.A.C. 7:27- 3.5]. | Other: Manual Logging of Visual Observations (Permanently Bound). Once every 100 hours of oil firing operation independent of the operating scenario.[N.J.A.C. 7:27- 3.5]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 2 | Opacity <= 10 % At all times the combustion turbine is operating , except during start-up and shutdown, visible emissions exclusive of condensed water vapor shall not exceed 10% opacity for a period of more than 10 consecutive seconds.<br><br>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(e)] | Other: Visual Determination in accordance with N.J.A.C.7:27B-2, every 100 hours of oil firing operation independent of the operating scenario. (See Applicable Requirement).[N.J.A.C. 7:27-22.16(o)]. | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency , every 100 hours of oil firing operation independent of the operating scenario. (See Applicable Requirement). [N.J.A.C. 7:27-22.16(o)] | None. |
| 3 | Particulate Emissions <= 144.7 lb/hr Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 4 | Sulfur Content in Fuel <= 0.0015 % by weight. Maximum allowable sulfur content in distillate fuel oil (ULSD). [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by fuel certification receipts per delivery. [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 |
|---|---|---|---|---|
| 5 | NOx (Total) <= 1.6 lb/MW-hr. NOx RACT emission limit applies during all periods of distillate fuel oil combustion during which net useful energy is being produced by the turbine. [N.J.A.C. 7:27-19.5(g)1] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)] |
| 6 | NOx (Total) <= 1 lb/MW-hr. NOx RACT emission limit applies during all periods of turbine operation on High Electric Demand Days (as defined below), during which net useful energy is being produced by the turbine This emission limit applies regardless of the fuel combusted, unless combusting natural gas is not possible due to gas curtailment.<br><br>"High electric demand day" or "HEDD" means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts or higher as predicted by the PJM Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at http://oasis.pjm.com/doc/projload.txt. [N.J.A.C. 7:27-19.5(g)2] | 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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.<br><br>See "Continuous Emission Monitoring System (CEMS) Requirement" 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 Specicification 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 occured.<br><br>See CEMS and QA/QC requirements 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 |
|---|---|---|---|---|
| 7 | The water injection system for the turbine shall be operating at all times that the combustion turbine is combusting distillate oil, except during start-up and shut-down periods. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 8 | Water-to-Fuel Ratio: Operate and maintain a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to +/-5.0% and approved by the Administrator. [N.J.A.C. 7:27-22.16(e)] | Other: Acid Rain CEMS will be used in lieu of water-to-fuel ratio monitoring. Monitor in accordance with 40 CFR 75 per EPA approval letter dated May 4, 2000.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 9 | VOC (Total) <= 110 lb/hr. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 10 | VOC (Total) <= 54 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 11 | VOC (Total) <= 0.073 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | VOC (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 12 | NOx (Total) <= 297 lb/hr. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 13 | NOx (Total) <= 42 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 14 | NOx (Total) <= 0.165 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 15 | CO <= 169 lb/hr. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and stack emission testing based on the average of three Department validated test runs ( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 16 | CO <= 50 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and stack emission testing based on the average of three Department validated test runs( See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 17 | CO <= 0.12 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and Stack Emission Testing based on the average of three Department validated test runs (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and Stack Test Results (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [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 |
|---|---|---|---|---|
| 18 | SO2 <= 94 lb/hr. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor by calculations (with sulfur content, heating value and per hour usage of fuel) in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | Other: Maintain records in accordance with 40 CFR 75, Appendix D.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 19 | SO2 <= 0.052 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | Other: Monitor in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | Other: Record and maintain records in accordance with 40 CFR 75.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 20 | TSP <= 32 lb/hr. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 21 | TSP <= 0.018 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | TSP: Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | TSP: Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 22 | PM-10 (Total) <= 8.24 lb/hr. [N.J.A.C. 7:27-22.16(a)] | PM-10 (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 23 | PM-10 (Total) <= 0.0178 lb/MMBTU. [N.J.A.C. 7:27-22.16(e)] | PM-10 (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | PM-10 (Total): Recordkeeping by stack test results at the approved frequency (see Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Applicable Requirement for GR1). [N.J.A.C. 7:27-22.16(o)] |
| 24 | PM-2.5 (Total) <= 8.24 lb/hr. [N.J.A.C. 7:27-22.16(a)] | Other: Monitoring for PM-10 shall satisfy the PM-2.5 monitoring requirement.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping for PM-10 shall satisfy the PM-2.5 recordkeeping requirement.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 25 | Maximum Gross Heat Input <= 1,447 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)] | Other: 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. |
| 26 | Methane <= 11.96 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 27 | Nitrous oxide <= 2.39 lb/hr. [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 |
|---|---|---|---|---|
| 28 | Arsenic Emissions <= 0.00263 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 29 | Benzene <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 30 | Beryllium Emissions <= 0.00071 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 31 | Butadiene (1,3-) <= 0.029 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 32 | Cadmium Emissions <= 0.00423 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 33 | Chromium (Hexavalent) Emissions <= 0.000141 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 34 | Formaldehyde <= 0.51 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 35 | Lead compounds <= 0.008 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 36 | Manganese Emissions <= 0.134 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 37 | Naphthalene <= 0.06332 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 38 | Nickel compounds <= 0.64 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 39 | Polycyclic organic matter <= 0.0724 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 40 | The owner or operator may elect not to monitor nitrogen content of the fuel being fired in the turbine if the owner or operator does not claim an allowance for fuel bound nitrogen. [40 CFR 60.334(h)(2)] | None. | None. | Other (provide description): Once initially The owner or operator does not claim an allowance for fuel bound nitrogen. The allowable NOx emission concentration included in this permit was calculated in accordance with 40 CFR 60.332(a). In calculations, NOx emission allowance (F-value) of zero was accepted. [40 CFR 60.334(h)(2)] |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 41 | Sulfur Content in Fuel <= 0.8 % by weight. No owner or operator subject to the provisions of this subpart shall burn any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). [40 CFR 60.333(b)] | Sulfur Content in Fuel: Monitored by grab sampling per delivery. Test methods and procedures shall be consistent with the requirements of 40 CFR Part 60.335. A minimum of three fuel samples shall be collected during the performance test. [40 CFR 60.335] | None. | None. |
| 42 | The owner or operator shall monitor the total sulfur content of the fuel being fired in the turbine if the fuel fired in the turbine does not meet the definition of natural gas as provided in 40 CFR 60.331(u). The owner or operator shall use the methods specified in 40 CFR 60.335(b)10. 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 60.334(h)(1)] | Monitored by grab sampling per delivery. Sulfur content values shall be determined on each occasion that fuel is transferred to the storage tank from any other source. If a custom fuel monitoring schedule has previously been approved, the owner or operator may continue monitoring on this schedule without submitting a special petition to the Administrator. [40 CFR 60.334(i)] | 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 60.334(i)] | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS5 Gas, Start-up**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Start-up Period <= 35 minutes. Start-up is the period of time from ignition until the unit, along with associated emission and operation controls, achieves steady state at 80 to 100% load conditions. [N.J.A.C. 7:27-22.16(a)] | Other: Hour/Time Monitor. Continuously.[N.J.A.C. 7:27-22.16(o)]. | Other: Data Acquisition System (DAS)/Electronic Data Storage. Continuously.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 118.9 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 253.4 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 1,040 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS6 Gas, Shutdown**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Shutdown Period <= 30 minutes. Shutdown is the period of time from the initial lowering of combustion turbine output to the cessation of combustion turbine operation. [N.J.A.C. 7:27-22.16(a)] | Other: Hour/Time Monitor. Continuously.[N.J.A.C. 7:27-22.16(o)]. | Other: Data Acquisition System (DAS)/Electronic Data Storage. Per Occurrence.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 118.9 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 253.4 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 1,040 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS7 Oil, Start-up**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Start-up Period <= 35 minutes. Start-up is the period of time from ignition until the unit, along with associated emission and operation controls, achieves steady state at 80 to 100% load conditions. [N.J.A.C. 7:27-22.16(a)] | Other: Hour/Time Monitor. Continuously.[N.J.A.C. 7:27-22.16(o)]. | Other: Data Acquisition System (DAS)/Electronic Data Storage. Continuously.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 118.9 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 508.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 1,040 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2323 Combustion turbine - simple cycle**
**Operating Scenario:** **OS8 Oil, Shutdown**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Shutdown Period <= 30 minutes. Shutdown is the period of time from the initial lowering of combustion turbine output to the cessation of combustion turbine operation. [N.J.A.C. 7:27-22.16(a)] | Other: Hour/Time Monitor. Continuously.[N.J.A.C. 7:27-22.16(o)]. | Other: Data Acquisition System (DAS)/Electronic Data Storage. Per Occurrence.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 2 | VOC (Total) <= 118.9 lb/hr. [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)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 3 | NOx (Total) <= 508.8 lb/hr. [N.J.A.C. 7:27-22.16(a)] | NOx (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |
| 4 | CO <= 1,040 lb/hr. [N.J.A.C. 7:27-22.16(a)] | CO: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)] | Other: Keep records of calculations.[N.J.A.C. 7:27-22.16(o)]. | None. |

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

**Emission Unit:** **U2519 Emergency Diesel Generator**
**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Summary of Applicable Federal Regulations: 40 CFR Part 63, MACT subpart ZZZZ . [40 CFR Federal Rules Summary] | None. | None. | None. |
| 2 | Opacity <= 20 % , exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 3 | Smoke emissions from emergency diesel generator no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. Opacity <= 10 %. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 4 | Particulate Emissions <= 1.78 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 5 | Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 6 | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 7 | Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility.<br><br>This emergency generator shall be operated only:<br><br>1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation,<br><br>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year;<br><br>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1] | Monitored by hour/time monitor continuously.<br><br>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:<br><br>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).<br><br>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing or maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, and maintenance activity). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information:<br><br>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.<br><br>2. For each time the emergency generator is specifically operated for testing or maintenance:<br><br>i. The reason for its operation;<br>ii. The date(s) of operation and the start up and shut down time;<br>iii. The total operating time for testing or maintenance based on the generator's hour meter; and<br>iv. The name of the operator; and<br><br>3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.<br>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and. [N.J.A.C. 7:27-19.11] | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 8 | This emergency generator shall not be used:<br><br>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and<br>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 9 | The Emergency Generator may be operated at other locations (within the State of New Jersey) only in the event of an emergency, as defined at N.J.A.C. 7:27-19.1. [N.J.A.C. 7:27-22.16(a)] | Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. 1. For each time the emergency generator is operated at a location other than the facility for which it is originally permitted in the event of an emergency, the Permittee of the emergency generator shall record the following: i) Document the location (name of facility with address) where the emergency generator is operated; ii) Document the emergency that occurred and describe whether the emergency was due to internal or external loss of primary source of energy at the location; iii) If emergency is due to internal loss at the location, document the damages to the primary source of energy and the amount of time needed for repairs; iv) Document the date(s) of operation and the start up and shut down time on each date; v) Document the total operating time at the location based on the generator's hour meter and the total amount of fuel and fuel type used for the duration of the emergency; vi)The name and contact information of the operator of the emergency generator at the location.<br>2. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.<br>The Permittee of the emergency generator shall have the above records on site within 30 days of the occurrence of the emergency event, maintain the record for a period of no less than 5 years after the record was made, and shall make the records readily available to the Department or the EPA upon request. [N.J.A.C. 7:27-22.16(o)] | Submit notification: Upon occurrence of event the Permittee of the emergency generator must submit the Recordkeeping Requirements to the Regional Enforcement Office within 30 days of the occurrence of the emergency event. [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 | VOC (Total) <= 0.005 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 11 | NOx (Total) <= 0.33 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 12 | CO <= 0.066 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 13 | Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)] | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information:<br><br>For each time the emergency generator is specifically operated for testing or maintenance:<br>i. The reason for its operation;<br>ii. The date(s) of operation and the start up and shut down time;<br>iii. The total operating time for testing or maintenance based on the generator's hour meter; and<br>iv. The name of the operator. [N.J.A.C. 7:27-19.11] | None. |
| 14 | Maximum Gross Heat Input <= 2.96 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)] | Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)]. | None. | None. |
| 15 | Generator fuel limited to # 2 fuel oil or diesel fuel. [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 |
|---|---|---|---|---|
| 16 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall change oil and filter every 500 hours of operation or annually, whichever comes first, as prescribed in Table 2d, item 4a to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall change oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the oil and filter change. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 17 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, as prescribed in Table 2d, item 4b and 4c to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall inspect air cleaner every 1000 hours or annually, whichever comes first and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the maintenance procedures and air cleaner, belt and hoses replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 18 | The engine must be in compliance with all applicable emission limitations and operating limitations in Subpart ZZZZ of 40 CFR 63 at all times. [40 CFR 63.6605(a)] | None. | None. | None. |
| 19 | At all times the owner or operate must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605(b)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 20 | An owner or operator of an existing stationary emergency or black start RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or the owner or operator must develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)] | Other: Monitored according to the manufacturer's emission-related written instructions or the maintenance plan developed by the owner or operator. [40 CFR 63.6625(e)]. | Other: The owner or operator must keep records of the maintenance procedures. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |
| 21 | The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)] | Other: The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Other: The owner or operator must keep records of the maintenance procedures and replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 22 | The owner or operator may operate an emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. The owner or operator may operate an emergency RICE up to 50 hours per year in non-emergency situations as allowed by 40 CFR 63.6640(f)(1)(iii) but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)] | Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(2)] | None. |
| 23 | The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing emergency or black start CI RICE constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions except for a residential, commercial, or institutional emergency stationary RICE. [40 CFR 63.6665] | None. | None. | None. |

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

**Emission Unit:** **U2519 Emergency Diesel Generator**
**Operating Scenario:** **OS1 2 FO FIRING**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | VOC (Total) <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 2 | NOx (Total) <= 6.6 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 3 | CO <= 1.32 lb/hr. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |

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

**Emission Unit:** **U2520 Emergency Generator**
**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Summary of Applicable Federal Regulations: 40 CFR Part 63, MACT subpart ZZZZ. [40 CFR Federal Rules Summary] | None. | None. | None. |
| 2 | Opacity <= 20 % , exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 3 | Opacity <= 10 %. Smoke emissions from emergency diesel generator 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(e)] | None. | None. | None. |
| 4 | Particulate Emissions <= 0.84 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 5 | Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 6 | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 7 | The Emergency Generator may be operated at other locations (within the State of New Jersey) only in the event of an emergency, as defined at N.J.A.C. 7:27-19.1. [N.J.A.C. 7:27-22.16(a)] | Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. 1. For each time the emergency generator is operated at a location other than the facility for which it is originally permitted in the event of an emergency, the Permittee of the emergency generator shall record the following: i) Document the location (name of facility with address) where the emergency generator is operated; ii) Document the emergency that occurred and describe whether the emergency was due to internal or external loss of primary source of energy at the location; iii) If emergency is due to internal loss at the location, document the damages to the primary source of energy and the amount of time needed for repairs; iv) Document the date(s) of operation and the start up and shut down time on each date; v) Document the total operating time at the location based on the generator's hour meter and the total amount of fuel and fuel type used for the duration of the emergency; vi)The name and contact information of the operator of the emergency generator at the location.<br>2. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.<br>The Permittee of the emergency generator shall have the above records on site within 30 days of the occurrence of the emergency event, maintain the record for a period of no less than 5 years after the record was made, and shall make the records readily available to the Department or the EPA upon request. [N.J.A.C. 7:27-22.16(o)] | Submit notification: Upon occurrence of event the Permittee of the emergency generator must submit the Recordkeeping Requirements to the Regional Enforcement Office within 30 days of the occurrence of the emergency event. [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 | Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility.<br><br>This emergency generator shall be operated only:<br><br>1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation,<br><br>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year;<br><br>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1] | Monitored by hour/time monitor continuously.<br><br>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:<br><br>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).<br><br>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing or maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, and maintenance activity). [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information:<br><br>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.<br><br>2. For each time the emergency generator is specifically operated for testing or maintenance:<br><br>i. The reason for its operation;<br>ii. The date(s) of operation and the start up and shut down time;<br>iii. The total operating time for testing or maintenance based on the generator's hour meter; and<br>iv. The name of the operator; and<br><br>3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.<br>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and. [N.J.A.C. 7:27-19.11] | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 9 | This emergency generator shall not be used:<br><br>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and<br>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)] | None. | None. | None. |
| 10 | VOC (Total) <= 0.026 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 11 | NOx (Total) <= 0.32 tons/yr. Annual emission limit based on the permitted hours per year of operation. [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 |
|---|---|---|---|---|
| 12 | CO <= 0.069 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 13 | TSP <= 0.023 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 14 | PM-10 (Total) <= 0.023 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 15 | PM-2.5 (Total) <= 0.023 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 16 | Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)] | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information:<br><br>For each time the emergency generator is specifically operated for testing or maintenance:<br>i. The reason for its operation;<br>ii. The date(s) of operation and the start up and shut down time;<br>iii. The total operating time for testing or maintenance based on the generator's hour meter; and<br>iv. The name of the operator. [N.J.A.C. 7:27-19.11] | None. |
| 17 | Generator fuel limited to # 2 fuel oil or diesel fuel. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 18 | Maximum Gross Heat Input <= 1.4 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)] | Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)]. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 19 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall change oil and filter every 500 hours of operation or annually, whichever comes first, as prescribed in Table 2d, item 4a to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall change oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the oil and filter change. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 20 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, as prescribed in Table 2d, item 4b and 4c to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall inspect air cleaner every 1000 hours or annually, whichever comes first and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the maintenance procedures and air cleaner, belt and hoses replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 21 | The engine must be in compliance with all applicable emission limitations and operating limitations in Subpart ZZZZ of 40 CFR 63 at all times. [40 CFR 63.6605(a)] | None. | None. | None. |
| 22 | At all times the owner or operate must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605(b)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 23 | An owner or operator of an existing stationary emergency or black start RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or the owner or operator must develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)] | Other: Monitored according to the manufacturer's emission-related written instructions or the maintenance plan developed by the owner or operator. [40 CFR 63.6625(e)]. | Other: The owner or operator must keep records of the maintenance procedures. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |
| 24 | The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)] | Other: The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Other: The owner or operator must keep records of the maintenance procedures and replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 25 | The owner or operator may operate an emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. The owner or operator may operate an emergency RICE up to 50 hours per year in non-emergency situations as allowed by 40 CFR 63.6640(f)(1)(iii) but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)] | Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(2)] | None. |
| 26 | The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing emergency or black start CI RICE constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions except for a residential, commercial, or institutional emergency stationary RICE. [40 CFR 63.6665] | None. | None. | None. |

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

**Emission Unit:** **U2520 Emergency Generator**
**Operating Scenario:** **OS1 207 HP Emergency Generator**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | VOC (Total) <= 0.52 lb/hr Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | NOx (Total) <= 6.42 lb/hr. Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | CO <= 1.38 lb/hr. Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | TSP <= 0.46 lb/hr. Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | PM-10 (Total) <= 0.46 lb/hr. Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | PM-2.5 (Total) <= 0.46 lb/hr. Maximum emission rate. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

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

**Emission Unit:** **U2524 Emergency Diesel Fire Pump**
**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Summary of Applicable Federal Regulations: 40 CFR Part 63, MACT subpart ZZZZ. [40 CFR Federal Rules Summary] | None. | None. | None. |
| 2 | Opacity <= 20 % , exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5] | None. | None. | None. |
| 3 | Opacity <= 10 %. Fire pump shall not be used in a manner which will cause the opacity to exceed 10%, exclusive of condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)] | None. | None. | None. |
| 4 | Particulate Emissions <= 1.38 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)] | None. | None. | None. |
| 5 | Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)] | Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)] | None. |
| 6 | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)] | None. | None. | None. |

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

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

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 8 | This emergency generator shall not be used:<br>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and<br>2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)] | None. | None. | None. |
| 9 | VOC (Total) <= 0.01 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 10 | NOx (Total) <= 0.355 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 11 | CO <= 0.095 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 12 | TSP <= 0.01 tons/yr. Annual emission limit based on the permitted hours per year of operation. [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 |
|---|---|---|---|---|
| 13 | PM-10 (Total) <= 0.005 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 14 | PM-2.5 (Total) <= 0.005 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 15 | Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)] | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information:<br><br>For each time the emergency generator is specifically operated for testing or maintenance:<br>i. The reason for its operation;<br>ii. The date(s) of operation and the start up and shut down time;<br>iii. The total operating time for testing or maintenance based on the generator's hour meter; and<br>iv. The name of the operator. [N.J.A.C. 7:27-19.11] | None. |
| 16 | Generator fuel limited to natural gas, # 2 fuel oil or diesel fuel. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 17 | Maximum Gross Heat Input <= 2.28 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)] | Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)]. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 18 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, as prescribed in Table 2d, item 4b and 4c to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall inspect air cleaner every 1000 hours or annually, whichever comes first and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the maintenance procedures and air cleaner, belt and hoses replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 19 | The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall change oil and filter every 500 hours of operation or annually, whichever comes first, as prescribed in Table 2d, item 4a to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)] | Other: The owner or operator shall change oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the oil and filter change. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)] | None. |
| 20 | The engine must be in compliance with all applicable emission limitations and operating limitations in Subpart ZZZZ of 40 CFR 63 at all times. [40 CFR 63.6605(a)] | None. | None. | None. |
| 21 | At all times the owner or operate must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605(b)] | None. | None. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 22 | An owner or operator of an existing stationary emergency or black start RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or the owner or operator must develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)] | Other: Monitored according to the manufacturer's emission-related written instructions or the maintenance plan developed by the owner or operator. [40 CFR 63.6625(e)]. | Other: The owner or operator must keep records of the maintenance procedures. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |
| 23 | The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)] | Other: The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)]. | Other: The owner or operator must keep records of the maintenance procedures and replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)]. | None. |

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

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 24 | The owner or operator may operate an emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. The owner or operator may operate an emergency RICE up to 50 hours per year in non-emergency situations as allowed by 40 CFR 63.6640(f)(1)(iii) but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [40 CFR 63.6640(f)(1)] | Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)] | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR 63.6655(f)(2)] | None. |
| 25 | The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing emergency or black start CI RICE constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions except for a residential, commercial, or institutional emergency stationary RICE. [40 CFR 63.6665] | None. | None. | None. |

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

**Emission Unit:** **U2524 Emergency Diesel Fire Pump**
**Operating Scenario:** **OS1 OIL FIRING**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | VOC (Total) <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 2 | NOx (Total) <= 7.1 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 3 | CO <= 1.9 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 4 | TSP <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 5 | PM-10 (Total) <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |
| 6 | PM-2.5 (Total) <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(a)] | None. | None. | None. |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

# New Jersey Department of Environmental Protection
# Facility Profile (General)

**Facility Name (AIMS):** GILBERT GENERATING STATION **Facility ID (AIMS):** 80002

**Street Address:** 315 RIEGELSVILLE RD
RT 627 HOLLAND TOWNSHIP
MILFORD, NJ 08848

**Mailing Address:** GILBERT GENERATING STA
315 RIEGELSVILLE RD
315 RIEGELSVILLE RD
MILFORD, NJ 08848

**State Plane Coordinates:**

| | |
|---|---|
| **X-Coordinate:** | 40 |
| **Y-Coordinate:** | 74 |
| **Units:** | Long/Lat |
| **Datum:** | Unknown |
| **Source Org.:** | Other/Unknown |
| **Source Type:** | Approx. Addr. Match |

**County:** Hunterdon

**Location Description:**

**Industry:**

| | |
|---|---|
| **Primary SIC:** | 4911 |
| **Secondary SIC:** | |
| **NAICS:** | 221112 |

# New Jersey Department of Environmental Protection
# Facility Profile (General)

**Contact Type: Air Permit Information Contact**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Vince Scire
**NJ EIN:**
**Title:** Interim Plant Manager
**Phone:** (410) 937-5801 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** vince.scire@naes.com

**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

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**Contact Type: BOP - Operating Permits**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Vince Scire
**NJ EIN:**
**Title:** Interim Plant Manager
**Phone:** (410) 937-5801 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** vince.scire@naes.com

**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

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**Contact Type: BTS - Technical Services**

**Organization:** Gilbert Power LLC
**Org. Type:**
**Name:** Kevin Shumaker
**NJ EIN:**
**Title:** Environmental Manager
**Phone:** (724) 809-3400 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** kevin.shumaker@naes.com

**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

## New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type: Consultant**

**Organization:** ERM
**Org. Type:** Corporation
**Name:** Jon Perry
**NJ EIN:**
**Title:** Project Manager
**Phone:** (609) 403-7505 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** jon.perry@erm.com
**Mailing Address:** 200 Princeton South Corporate Center
Suite 160
Ewing, NJ 08628

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**Contact Type: Emission Statements**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Kevin Shumaker
**NJ EIN:**
**Title:** Environmental Manager
**Phone:** (724) 809-3400 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** kevin.shumaker@naes.com
**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

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**Contact Type: Fees/Billing Contact**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Vince Scire
**NJ EIN:**
**Title:** Interim Plant Manager
**Phone:** (410) 937-5801 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** vince.scire@naes.com
**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

## New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type: General Contact**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Vince Scire
**NJ EIN:**
**Title:** Interim Plant Manager
**Phone:** (410) 937-5801 x
**Fax:** (908) 995-6990 x
**Other:** ( ) - x
**Type:**
**Email:** vince.scire@naes.com

**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

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**Contact Type: On-Site Manager**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Vince Scire
**NJ EIN:**
**Title:** Interim Plant Manager
**Phone:** (410) 937-5801 x
**Fax:** (908) 995-6990 x
**Other:** ( ) - x
**Type:**
**Email:** vince.scire@naes.com

**Mailing Address:** Gilbert Generating Station
315 Riegelsville RD
Milford, NJ 08848

---

**Contact Type: Operator**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Gilbert Power LLC
**NJ EIN:**
**Title:** Owner/Operator
**Phone:** ( ) - x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** jkennedy@mrpgenco.com

**Mailing Address:** 200 W. Madison
Ste. 3810
Chicago, IL 60606

**GILBERT GENERATING STATION (80002)**
**BOP220001**

## New Jersey Department of Environmental Protection
## Facility Profile (General)

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

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** Gilbert Power LLC
**NJ EIN:**
**Title:** Owner/Operator
**Phone:** ( ) - x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** jkennedy@mrpgenco.com
**Mailing Address:** 200 W. Madison
Ste. 3810
Chicago, IL 60606

---

**Contact Type: Responsible Official**

**Organization:** Gilbert Power LLC
**Org. Type:** LLC
**Name:** John Kennedy
**NJ EIN:**
**Title:** Authorized Representative
**Phone:** (773) 269-7880 x
**Fax:** ( ) - x
**Other:** ( ) - x
**Type:**
**Email:** jkennedy@mrpgenco.com
**Mailing Address:** 200 W. Madison
Ste. 3810
Chicago, IL 60606

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

## 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) |
| IS2 | Sfc/parts cleaners < 6 ft.sq. opening | Cleaning Machine (Open Top: Cold) | | 0.020 | | | | | | | | |
| IS3 | Spray operations < 0.5 gal/hr and < 2.5 gal/day | Surface Coating Equipment (Non-Fabric Material) | | 0.020 | | | | | | | | |
| IS4 | Misc. space heaters < 1 mmbtu/hr | Fuel Combustion Equipment (Other) | | 0.020 | | | | | | | | |
| IS5 | Misc. combustion < 1 mmbtu/hr | Fuel Combustion Equipment (Other) | | 0.020 | | | | | | | | |
| IS6 | 4 Fuel Oil Storage Tanks <= 350 degrees F and < 0.02 psia | Storage Vessel | | 1.640 | | | | | | | | |
| IS7 | Gasoline Storage Tank | Storage Vessel | | 0.220 | | | | | | | | |
| IS8 | Surface/Parts Cleaner < 6sq ft opening | Cleaning Machine (Open Top: Cold) | | 0.020 | | | | | | | | |
| IS9 | Cooling Tower < 50 lb/hr raw materials | Other Equipment | | | | | | 0.002 | | | | |
| Total | | | | 1.960 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.00000000 | 0.000 |

**GILBERT GENERATING STATION (80002)** Date: 3/19/2024

**BOP220001**

# 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 |
|---|---|---|---|---|---|---|---|---|
| E10 | STAG 4 GT | C/C STAG 4 GT | Combustion Turbine | 01941776 | | No | 6/1/1995 | |
| E11 | STAG 5 GT | C/C STAG 5 GT | Combustion Turbine | 01941777 | | No | 6/1/1995 | |
| E12 | STAG 6 GT | C/C STAG 6 GT | Combustion Turbine | 01941778 | | No | 6/1/1995 | |
| E13 | STAG 7 GT | C/C STAG 7 GT | Combustion Turbine | 01941779 | | No | 6/1/1995 | |
| E19 | | CC/Emer Diesel | Emergency Generator | 078610 | | No | | |
| E23 | | CT 9 | Combustion Turbine | 121564 | | No | 3/9/1995 | |
| E24 | | Diesel Fire Pump | Emergency Generator | 123343 | | No | | |
| E26 | | GH-09A | Other Equipment | 128842 | 10/11/1996 | No | | |
| E2520 | Emer Generat | Emergency  Generator, 207 HP | Emergency Generator | | | No | | |

**80002 GILBERT GENERATING STATION BOP220001 E11 (Combustion Turbine)**
**Print Date: 12/14/2023**

| | | | |
|---|---|---|---|
| Make: | | | |
| Manufacturer: | GE | | |
| Model: | FRAME 7B | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | 986.00 | | |
| Type of Turbine: | Industrial | | |
| Type of Cycle: | Combined-Cycle | Description: | |
| Industrial Application: | Electrical Generato | Description: | |
| Power Output: | 49.00 | 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: | |
| Other: | ☐ | Description: | |

| | | | |
|---|---|---|---|
| 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:

**80002 GILBERT GENERATING STATION BOP220001 E12 (Combustion Turbine)**
**Print Date: 12/14/2023**

| | | | |
|---|---|---|---|
| Make: | | | |
| Manufacturer: | GE | | |
| Model: | FRAME 7B | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | 986.00 | | |
| Type of Turbine: | Industrial | | |
| Type of Cycle: | Combined-Cycle | Description: | |
| Industrial Application: | Electrical Generato | Description: | |
| Power Output: | 49.00 | 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: | |
| Other: | ☐ | Description: | |

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:

**80002 GILBERT GENERATING STATION BOP220001 E13 (Combustion Turbine)**
**Print Date: 12/14/2023**

| | | | |
|---|---|---|---|
| Make: | | | |
| Manufacturer: | GE | | |
| Model: | FRAME 7B | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | 986.00 | | |
| Type of Turbine: | Industrial | | |
| Type of Cycle: | Combined-Cycle | Description: | |
| Industrial Application: | Electrical Generato | Description: | |
| Power Output: | 49.00 | 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: | |
| Other: | ☐ | Description: | |

| | | | |
|---|---|---|---|
| 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:

**80002 GILBERT GENERATING STATION BOP220001 E10 (Combustion Turbine)**
**Print Date: 12/14/2023**

| | | | |
|---|---|---|---|
| Make: | | | |
| Manufacturer: | GE | | |
| Model: | FRAME 7B | | |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | 986.00 | | |
| Type of Turbine: | Industrial | | |
| Type of Cycle: | Combined-Cycle | Description: | |
| Industrial Application: | Electrical Generato | Description: | |
| Power Output: | 49.00 | 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: | |
| Other: | ☐ | Description: | |

| | | | |
|---|---|---|---|
| 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:

**80002 GILBERT GENERATING STATION BOP220001 E2520 (Emergency Generator)**
**Print Date: 12/14/2023**

| | |
|---|---|
| Make: | Cummins |
| Manufacturer: | Cummins |
| Model: | 6CT8.3 |
| Maximum rated Gross Heat Input (MMBtu/hr-HHV): | |
| Will the equipment be used in excess of 500 hours per year? | ○ Yes ● No |
| Have you attached a diagram showing the location and/or the configuration of this equipment? | ○ Yes ● No |
| Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? | ○ Yes ● No |
| Comments: | Date of Manufacture: August 1995 Serial Niumber: 45220681 |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

## 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. | | |
| PT10 | C/C STAG 4 | C/C STAG 4 GT By-Pass, 2 stacks per unit at 122.5" ID | Square | 123 | 40 | 550 | 840.0 | 820.0 | 1,100.0 | 1,250,000.0 | 1,150,000.0 | 1,500,000.0 | Up | |
| PT11 | C/C STAG 5 | C/C STAG 5 GT By-Pass, 2 stacks per unit at 122.5" ID | Square | 123 | 40 | 510 | 840.0 | 820.0 | 1,100.0 | 1,220,000.0 | 1,150,000.0 | 1,500,000.0 | Up | |
| PT12 | C/C STAG 6 | C/C STAG 6 GT By-Pass, 2 stacks per unit at 122.5" ID | Square | 123 | 40 | 475 | 840.0 | 820.0 | 1,100.0 | 1,250,000.0 | 1,150,000.0 | 1,500,000.0 | Up | |
| PT13 | C/C STAG 7 | C/C STAG 7 GT By-Pass, 2 stacks per unit at 122.5" ID | Square | 123 | 46 | 425 | 840.0 | 820.0 | 1,100.0 | 1,250,000.0 | 1,150,000.0 | 1,500,000.0 | Up | |
| PT19 | Emer Gen | CC/ Emergency Diesel | Round | 6 | 15 | 1,600 | 1,180.0 | 1,000.0 | 1,180.0 | 1,370.0 | 1,370.0 | 1,370.0 | Horizontal | |
| PT23 | CT 9 | CT 9 | Round | 215 | 175 | 450 | 1,060.2 | 550.0 | 1,116.0 | 1,700,000.0 | 960,000.0 | 1,920,000.0 | Up | |
| PT24 | Emer Gen | Diesel Fire Pump | Round | 6 | 15 | 138 | 1,180.0 | 1,000.0 | 1,180.0 | 1,387.0 | 1,050.0 | 1,387.0 | Horizontal | |
| PT26 | GH-09A | Stack for CT9 Heater | Round | 20 | 20 | 450 | | 761.0 | 906.0 | 1,730.0 | | | Horizontal | |
| PT1010 | C-4 HRSG | C/C STAG 4 GT HRSG | Square | 219 | 76 | 600 | 420.0 | 400.0 | 460.0 | 845,000.0 | 826,000.0 | 883,000.0 | Up | |
| PT1011 | C-5 HRSG | C/C STAG 5 GT HRSG | Square | 219 | 76 | 550 | 420.0 | 400.0 | 460.0 | 845,000.0 | 826,000.0 | 883,000.0 | Up | |
| PT1012 | C-6 HRSG | C/C STAG 6 GT HRSG | Square | 219 | 76 | 500 | 420.0 | 400.0 | 460.0 | 845,000.0 | 826,000.0 | 883,000.0 | Up | |
| PT1013 | C-7 HRSG | C/C STAG 7 GT HRSG | Square | 219 | 76 | 460 | 420.0 | 400.0 | 460.0 | 845,000.0 | 826,000.0 | 883,000.0 | Up | |
| PT2520 | Emer Generat | Emergency Generator | | 4 | 9 | 450 | 955.0 | | | 1,400.0 | | | | |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

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

**U 26 GH-09A Natural Gas Heater for CT 9**

| 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 | Heater NG | Heater Natural Gas for CT 9 | Normal - Steady State | E26 | | PT26 | | | | | | | | |

**U 2210 CC-4 Combined Cycle Unit with Heat Recovery Steam Generator**

| 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS3 | CT 4 PNG C/C | CT 4 PNG FIRED, COMBINED CYCLE, HRSG | Normal - Steady State | E10 | | PT1010 | 2-01-002-01 | | | | | | | |
| OS4 | CT 4 PNG S/C | CT 4 PNG FIRED, SIMPLE CYCLE, BY-PASS | Normal - Steady State | E10 | | PT10 | 2-01-002-01 | | | | | | | |
| OS5 | CT 4 Startup | Start-up | Startup | E10 | | | 2-01-002-01 | | | | | | | |
| OS6 | CT4 Shutdown | Shut-down | Shutdown | E10 | | | 2-01-002-01 | | | | | | | |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

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

**U 2211 CC-5 Combined Cycle Unit with Heat Recovery Steam Generator**

| 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS3 | CT 5 PNG C/C | CT 5 GAS FIRED, COMBINED CYCLE | Normal - Steady State | E11 | | PT1011 | 2-01-002-01 | | | | | | | |
| OS4 | CT 5 PNG S/C | CT 5 GAS FIRED, SIMPLE CYCLE | Normal - Steady State | E11 | | PT11 | 2-01-002-01 | | | | | | | |
| OS5 | Start-up | Start-up | Startup | E11 | | PT11 | 2-01-002-01 | | | | | | | |
| OS6 | Shutdown | Shutdown | Shutdown | E11 | | PT11 | 2-01-002-01 | | | | | | | |

**U 2212 CC-6 Combined Cycle Unit with Heat Recovery Steam Generator**

| 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS3 | CT 6 PNG C/C | CT PNG FIRED, COMBINED CYCLE, HRSG | Normal - Steady State | E12 | | PT1012 | 2-01-002-01 | | | | | | | |
| OS4 | CT 6 PNG S/C | CT PNG FIRED, SIMPLE CYCLE, BY-PASS | Normal - Steady State | E12 | | PT12 | 2-01-002-01 | | | | | | | |
| OS5 | Start-up | Start-up | Startup | E12 | | PT12 | 2-01-002-01 | | | | | | | |
| OS6 | Shutdown | Shutdown | Shutdown | E12 | | PT12 | 2-01-002-01 | | | | | | | |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

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

**U 2213 CC-7 Combined Cycle Unit with Heat Recovery Steam Generator**

| 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS3 | CT 7 PNG C/C | CT 7 GAS FIRED, COMBINED CYCLE, HRSG | Normal - Steady State | E13 | | PT1013 | 2-01-002-01 | | | | | | | |
| OS4 | CT 7 PNG S/C | CT 7 GAS FIRED, SIMPLE CYCLE, BY-PASS | Normal - Steady State | E13 | | PT13 | 2-01-002-01 | | | | | | | |
| OS5 | Start-up | Start-up | Startup | E13 | | PT13 | 2-01-002-01 | | | | | | | |
| OS6 | Shutdown | Shutdown | Shutdown | E13 | | PT13 | 2-01-002-01 | | | | | | | |

**U 2323 CT 9 Combustion turbine - simple cycle**

| 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 | GAS, > 80% L | GAS, > 80% LOAD | Normal - Steady State | E23 | | PT23 | | | | | | | 1,035.0 | |
| OS2 | OIL, > 80% L | OIL, > 80% LOAD | Normal - Steady State | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |
| OS3 | GAS, < =80% | GAS, < OR= 80% LOAD | Normal - Steady State | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |
| OS4 | OIL, < =80% | OIL, < OR = 80% LOAD | Normal - Steady State | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |
| OS5 | Gas,Start-up | Gas, Start-up | Startup | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |
| OS6 | Gas,Shutdown | Gas, Shutdown | Shutdown | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

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

**U 2323 CT 9 Combustion turbine - simple cycle**

| 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. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS7 | Oil,Start-up | Oil, Start-up | Startup | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |
| OS8 | Oil,Shutdown | Oil, Shutdown | Shutdown | E23 | | PT23 | | | | | | | 1,035.0 | 1,069.0 |

**U 2519 Emer Diesel Emergency Diesel Generator**

| 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 | | 2 FO FIRING | Normal - Steady State | E19 | | PT19 | | | | | | | | |

**GILBERT GENERATING STATION (80002)**
**BOP220001**

Date: 3/19/2024

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

**U 2520 Emer Generat Emergency Generator**

| 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 | Emer Generat | 207 HP Emergency Generator | Normal - Steady State | E2520 | | PT2520 | | | | | | | | |

**U 2524 Emer Diesel Emergency Diesel Fire Pump**

| 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 | | OIL FIRING | Normal - Steady State | E24 | | PT24 | | | | | | | | |

Date: 3/19/2024

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

**Group NJID:** GR1 Turbine Test

**Members:**

| Type | ID | OS | Step |
|---|---|---|---|
| U | U 2210 | OS0 Summary | |
| U | U 2210 | OS3 CT 4 PNG C/C | |
| U | U 2211 | OS0 Summary | |
| U | U 2211 | OS3 CT 5 PNG C/C | |
| U | U 2212 | OS0 Summary | |
| U | U 2212 | OS3 CT 6 PNG C/C | |
| U | U 2213 | OS0 Summary | |
| U | U 2213 | OS3 CT 7 PNG C/C | |
| U | U 2323 | OS0 Summary | |

**Formal Reason(s) for Group/Cap:**

☑ Other

**Other (explain):**

**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:** GR2 RGGI Rules

**Members:**

| Type | ID | OS | Step |
|---|---|---|---|
| U | U 2210 | OS0 Summary | |
| U | U 2211 | OS0 Summary | |
| U | U 2212 | OS0 Summary | |
| U | U 2213 | OS0 Summary | |
| U | U 2323 | OS0 Summary | |

**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:** GR3 PACT Rules

**Members:**

| Type | ID | OS | Step |
|---|---|---|---|
| U | U 2210 | OS0 Summary | |
| U | U 2211 | OS0 Summary | |
| U | U 2212 | OS0 Summary | |
| U | U 2213 | OS0 Summary | |
| U | U 2323 | OS0 Summary | |

**Formal Reason(s) for Group/Cap:**

☑ Other

**Other (explain):** PACT Rule Designation

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

**Operating Circumstances:**

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

# APPENDIX I

GenOn

121 Champion Way,Ste 200
Canonsburg, PA 15317
Timothy.Mckenzie@genon.com
Writer's Direct Dial Number
724-597-8670

June 23, 2011

**Via Overnight Mail**

Mr. Bachir Bouzid, Section Chief
Division of Air Quality
NJ Department of Environmental Protection
401 East State Street, 2nd. Floor
P. O. Box 420
Trenton, NJ 08608-1501

**RE: Acid Rain Permit Renewal Application for the Gilbert Generating Station Units 04, 05, 06, 07 and 09 (ORIS Code 2393), Hunterdon County, NJ**

Dear Mr. Bouzid:

In accordance with 40 CFR § 72.30(c), GenOn REMA, LLC (GenOn) is submitting the attached Acid Rain Permit Renewal Application (original and three copies) to the Department. On April 11, 2006, a renewal application was submitted to the Department as a result of the existing Acid Rain Permit expiring on 12/31/2006. However, to date, GenOn has not received a renewal of the permit. GenOn is submitting the renewal application now in keeping with the 5 year cycle of the renewal process.

If you have any questions or require additional information regarding this application, please contact me.

Sincerely,

Timothy E. McKenzie
jm

Timothy E. McKenzie
Senior Environmental Specialist

TEM/jm/TEM1370G

Enclosures

cc: M. Hogan – NJDEP - Trenton, NJ
F. Steitz – NJDEP – Trenton, NJ
USEPA Clean Air Markets Division

bcc: L. Alden
A. M. Catanese
D. Cramer
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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 |
|---|---|---|
| Gilbert Generating Station | NJ | 2393 |

**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) |
| 04 | Yes |
| 05 | Yes |
| 06 | Yes |
| 07 | Yes |
| 9 | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |

Facility (Source) Name (from STEP 1): Gilbert Generating Station

**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 sourceshall:
- (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) Gilbert Generating Station

**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) | Gilbert Generating Station |
|---|---|

**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,

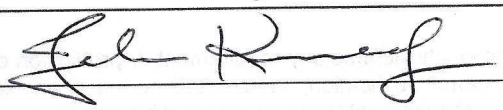
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**

**Read the certification statement, sign, and date.**

**Certification**

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

| Name | John Kennedy | |
|---|---|---|
| Signature |  | Date 1/22/2024 |

# 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.

**APPENDIX III**

**Facility Name: GILBERT GENERATING STATION**
**Program Interest Number: 8 0 0 0 2**

# Alternative Emission Monitoring Plan

# For

# Gaseous Pollutant

# Of

# Peaking Turbines

| Unit ID | EU ID | Svc. Hrs./ Yr - 5- | 1998 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gilbert C/C Stag 4 GT | U2210 | 655.77 | | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | C - VOC | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS |
| Gilbert C/C Stag 5 GT | U2211 | 670.9 | | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | C - VOC | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS |
| Gilbert C/C Stag 6 GT | U2212 | 631.72 | | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | C - VOC | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS |
| Gilbert C/C Stag 7 GT | U2213 | 651.05 | | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | C - VOC | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS |
| Gilbert CT9 | U2323 | 169.35 | | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | C | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS | CEMS |
| Sayreville Turbine (CT-1) | U4318 | 91.37 | Apr-99 | | | P | C | P | P | P | P | C | P | P | P | P | P | P | P | P | P | C | P | P | P | P | C | P |
| Sayreville Turbine (CT-2) | U4319 | 149.97 | | | | P | C | P | P | P | P | C | P | P | P | P | P | P | P | P | P | C | P | P | P | P | C | P |
| Sayreville Turbine (CT-3) | U4320 | 137.76 | Apr-99 | | | P | P | P | P | | P | C | P | P | P | P | P | P | P | P | C | P | P | P | P | C | P | P |
| Sayreville Turbine (CT-4) | U4321 | 156.39 | Apr-99 | | | P | P | P | P | | P | C | P | P | P | P | P | P | P | P | C | P | P | P | P | C | P | P |

**Key**

**Term of Operating Permit**

- Term of 1st. Operating Permit
- Term of 2nd. Operating Permit
- Term of 3rd. Operating Permit
- Term of 4th. Operating Permit
- Term of 5th. Operating Permit
- Term of 6th. Operating Permit

**Testing**

**C** - *Compliance Test NOx, CO (on natural gas) / NOx, CO, VOC (on oil)*

**C - VOC** - *Compliance Test VOC (on oil only)*

**P** - *Periodic Emission Monitoring Testing for NOx, CO, and O2*

**CEMS** - *Use of Certified CEMS - Gilbert CEMS were certified by NJDEP on the following dates:*
*Stag 4 – 08/18/95; Stag 5 – 06/28/95; Stag 6 – 06/28/95; Stag 7 – 06/28/95; CT-9 – 06/18/96*

**Notes**

*1. Compliance and Periodic Emission Monitoring Testing may be performed when the units are operating "in-market"*
*2. Advance notice to the NJDEP of Periodic Emission Monitoring Testing will be made as far in advance as possible (at least 24 hours notice required)*
*3. Advance notice to the NJDEP of Reference Method Stack Testing will be made as far in advance as possible (at least 7 days notice required; one week stack testing window must be scheduled with EMS at least 30 days in advance)*
*Note: In the event that the NJDEP is unavailable to witness the test, GenOn shall be allowed to procced per schedule notification to minimize economic loss.*
*4. Certified CEMS systems will be used in lieu of Periodic Emission Monitoring Testing where applicable.*
*5. Periodic Emission Monitoring Testing shall be performed annually. In addition, Combustion Adjustments shall be performed according to the manufacturer's recommended schedule (as required by the operating permit). Annual testing may be performed at time of combustion adjustments.*
*6. Svc. Hrs./ Yr - 5-Yr Avg based on 2001 - 2005 operations.*
*7. Testing may be scheduled prior to the year listed on this schedule, provided the necessary approvals of the test protocols and scheduling of mutually acceptable test dates with EMS are obtained,*
*8. EMS approved CEMS monitoring of CO and NOx emissions in leu of stack testing for these pollutants for Gilbert Stag 4, 5, 6, & 7 units.*

# APPENDIX IV

**Facility Name: GILBERT GENERATING STATION**
**Program Interest Number: 80002**

## Alternative Emission Monitoring Plan

**For**

**Particulates**

**of**

**Peaking Turbines**

# Alternate Emission Monitoring Plan For Particulates

| Unit ID | EU | Svc Hrs/Yr 5-yr Avg | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gilbert C/C Stag 4 | 2210 | 655.77 | | | | | | Aug-04 | | | | | | | | | | Test one of 4 units | | | | | | | | | | Test one of 4 units | | | | | |
| Gilbert C/C Stag 5 | 2211 | 670.90 | | | | | | Aug-04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gilbert C/C Stag 6 | 2212 | 631.72 | | | | | | Aug-04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gilbert C/C Stag 7 | 2213 | 651.05 | | | | | | Aug-04 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gilbert CT9 | 2323 | 169.35 | | | | | | | | Aug-06 | | | C-CT9 | | | | | | C-Gas | | | | C-Oil | | | | | | C-Gas | | | | C-Oil |
| Sayreville CT-1 | 4318 | 91.37 | Apr-99 | | | | Sep-03 | | | | | | | | | | | | Test one of 4 units | | | | | | | | | | Test one of 4 units | | | | |
| Sayreville CT-2 | 4319 | 149.97 | | | | | Sep-03 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sayreville CT-3 | 4320 | 137.76 | Apr-99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sayreville CT-4 | 4321 | 156.39 | Apr-99 | | | | Sep-03 | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Key**

**Term of Operating Permit**

- -Term of 1st Operating Permit
- -Term of 2nd Operating Permit
- -Term of 3rd Operating Permit
- -Term of 4th Operating Permit
- -Term of 5th Operating Permit

**Testing**

- C -Compliance Test TSP & PM-10 (on oil) and PM-10 (on gas)
- C-CT9 -Compliance Test TSP & PM-10 (on oil)
- C-Gas -Compliance Test PM-10 (on gas)

**Notes**

1. Compliance Testing may be performed when the units are operating "in-market"

2. Advance notice to the NJDEP of Reference Method Stack Testing will be made as far in advance as possible (at least 7 days notice required; one week stack testing window must be scheduled with EMS at least 30 days in advance) Note: In the event that the NJDEP is unavailable to witness the test, NRG shall be allowed to procced per schedule notification to minimize economic loss.

3. Svc. Hrs./ Yr - 5-Yr Avg based on 2001 - 2005 operations.

4. Testing may be scheduled prior to the year listed on this schedule, provided the necessary approvals of the test protocols and scheduling of mutually acceptable test dates with EMS are obtained.

5. DEP shall choose the unit to be stack tested in each group of like turbines.