State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR, ENERGY AND MATERIALS SUSTAINABILITY
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SHAWN M. LATOURETTE
Commissioner

PAUL BALDAUF
Asst. Commissioner

Air Pollution Control Operating Permit
Renewal

Permit Activity Number: BOP200002 **Program Interest Number: 78912**

Mailing Address	Plant Location
NICHOLAS WRIGHT VP, ASSET MANAGEMENT HULL STREET ENERGY 4920 ELM ST., STE 205 BETHESDA, MD 20814	FORKED RIVER POWER LLC Rt 9 Southbound Gate 5 Lacey Twp Ocean County

Initial Operating Permit Approval Date: September 27, 2001

Operating Permit Approval Date: Draft

Operating Permit Expiration Date: To be determined

AUTHORITY AND APPLICABILITY

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

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

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

PERMIT SHIELD

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

COMPLIANCE SCHEDULES

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

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

ACCESSING PERMITS

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

HELPLINE

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

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

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

COMPLIANCE ASSURANCE MONITORING

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

ADMINISTRATIVE HEARING REQUEST

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

If you have any questions regarding this permit approval, please call Patrick Marshall at (609) 633-8224.

Approved by:

_____
Shafi Ahmed

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

Facility Name: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

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Section A

Facility Name: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

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)	$PM_{2.5}$[2] (total)	Pb	HAPs* (total)	CO_2e[3]
Emission Units Summary	6.07	138	90.4	54.2	14	14	NA	0.00298	0.83	
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	6.07	138	90.4	54.2	14	14	NA	0.00298	0.83	115,636

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)	$PM_{2.5}$[2] (total)	Pb	HAPs (total)
Insignificant Source Operations	0.014	0.049	0.011	0.003	0.003	0.003	NA	NA	0.000071
Non-Source Fugitive Emissions[4]	0.10	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] $PM_{2.5}$ has been included in air permitting rules as of December 9, 2017. Consequently, $PM_{2.5}$ totals in this section may not be up to date. The Department is in the process of updating these limits during each permit modification, and the entire permit will be updated at the time of permit renewal.
[3] Total CO_2e emissions for the facility.
[4] Non-Source Fugitive Emissions are included if the facility falls into one or more categories listed at N.J.A.C. 7:27-22.2(a)2.

Section A

Facility Name: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

POLLUTANT EMISSIONS SUMMARY

Table 3: Summary of Hazardous Air Pollutants (HAP) Emissions from Significant Source Operations[5]:

HAP	TPY
Acetaldehyde	0.027
Acrolein	0.00432
Arsenic	0.00234
Benzene	0.0198
Beryllium	0.00007
1,3-Butadiene	0.00369
Cadmium	0.00102
Ethylbenzene	0.0216
Formaldehyde	0.5388
Lead	0.00298
Manganese	0.168
Naphthalene	0.00832
Nickel	0.00098
Polycyclic Organic Matter	0.01
Propylene Oxide	0.01958

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

Other Air Contaminant	TPY
N/A	

[5] 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: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

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 http://www.nj.gov/dep/aqpp/applying.html (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal

at: http://njdeponline.com/. The application is considered timely if it is received at least 12 months before the expiration date of the operating permit. To be deemed administratively complete, the renewal application shall include all information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies can be identified and addressed to ensure that the application is administratively complete by the renewal deadline. Only renewal applications which are timely and administratively complete are eligible for an application shield.

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: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

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	---	13b	---
D	FC	---	3
D	FC	---	9
D	GR	2	1 - 13

Section D

Facility Name: FORKED RIVER POWER LLC
Program Interest Number: 78912
Permit Activity Number: BOP200002

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

Subject Item and Name — **Page Number**

Facility (FC):

FC 1

Insignificant Sources (IS):

IS NJID	IS Description	
IS1	Three Tanks (<10,000 gal. and vapor pressure <0.02 psia)	7
IS2	Diesel Fire Pump engine (less than 1MMBtu/hr)	8

Groups (GR):

GR NJID	GR Designation	GR Description	
GR1	NOx Average	NOX Averaging Plan Emission Units	11
GR2	CO2 Budget	CO2 Budget Trading Program Emission Units	15

Emission Units (U):

U NJID	U Designation	U Description	
U1302	GEFrame6 CT1	Combustion Turbine #1 - simple cycle turbine (46 MW)	25
U1303	GEFrame6 CT2	Combustion Turbine #2 - simple cycle turbine (46 MW)	81
U1304 & U1305	#1StarterDsl	CT#1 Starter Diesel Engine	125
U1701	FR Fuel Oil	Storage tank for #2 FO (1 MMgal)	133

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 200003

Description of Modifications:

Five-year Permit Renewal.per N.J.A.C. 7:27-22.30.

A. Per N.J.A.C. 7:27-22.30(d), an administratively complete applicaiton must contain the following:

1. A summary of the changes to the operating permit since the most recent renewal.. The most recent Permit renewal (BOP 150002) was approved on 6/28/16. Subsequently, there have been several Minor Modifications and Administrative Amendments to the Permit:
BOP160002, approved 9/6/16 - Administrative Amendment to change the responsible official and other facility contact information.
- BOP160003, approved 11/7/16 - Minor Modification to remove peak load operating operating scenarios (OS3 & OS4) for Combustion Turbine #2 (U1303), update the NOx Averaging Plan, and update the facility mailing address.
- BOP170001, approved 7/11/17 - Minor Modification to remove the low load, oil fired operating operating scenario (OS12) for CT #1 (U1302) and update facility contact information.
- BOP190002, approved 3/10/20 - Minor Modificati6on to incorporate applicable requirements of the NJDEP CO2 Budget Trading Program [NJAC 7:27C]
- BOP200001, approved 6/11/20 - Minor Modification to remove the low load, oil fired operating operating scenario (OS12) for CT #2 (U1303) and to remove obsolete stack testing requirements.

2. Any additional proposed changes to the operating permit.
- Proposed changes to facility contact information are included in the Facility Profile section of this application RADIUS file.
- A revised copy of the NOx Averaging Plan and Alternative Monitoring Plan (Appendix II of the current Operating Permit) is included as an attachment to the application.

3. Any seven-day-notice changes submitted since the most recent permit renewal.
- A seven-day notice for replacement of the fuel injectors for CT#2 Starter Diesel Engine (U1305) was submitted to NJDEP on 9/13/2019.

4. Changes to information for insignificant source operations.
- There are no changes to the information in the operating permit for insignificant operations

5. A summary of the results of any source emissions testing since the permit renewal.
- Five-year emissions testing, required by the Operating Permit, of the Combustion Turbines (U1302 & U1303) and Starter Diesel Engines (U1304 & U1305) was conducted in October / November 2019. A summary of the results for the testing is included as an attachment to this application.

6. Proposed draft operating permit conditions for any seven-day notice or any changes to the facility or its operations proposed for inclusion in the Permit renewal.
- No changes to the Operating Permit conditions are needed for the 9/13/19 seven-day notice change or the proposed changes to the facility contact information.

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

New Jersey Department of Environmental Protection
Reason for Application

Per N.J.A.C. 7:27-22.30(d), an application for renewal of an operating permit with an expiration date of February 12, 2021 or later must include each Hazardous Air Pollutant (HAP) for which a source operation's potential to emit exceeds the applicable threshold for reporting emissions at N.J.A.C. 7:27-17.9(a). Calculations of the potential HAP emissions for emission sources at the Forked River Power facility are included as an attachment to this application and discussed in the application cover letter

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **FC**

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	The Department and its authorized representatives shall have the right to enter and inspect any activity subject to N.J.A.C. 7:27-22, or portion thereof, pursuant to N.J.A.C. 7:27-1.31. [N.J.A.C. 7:27-22.16(g)9]	None.	None.	None.
17	The permittee shall pay fees to the Department pursuant to N.J.A.C. 7:27. [N.J.A.C. 7:27-22.16(g)10]	None.	None.	None.
18	Each permittee shall meet all requirements of the approved source emissions testing and monitoring protocol during the term of the operating permit. Whenever the permittee makes a replacement, modification, change or repair of a certified CEMS or COMS that may significantly affect the ability of the system to accurately measure or record data, the permittee must recertify the CEMS or COMS in accordance with Section V.B. and Appendix E of Technical Manual 1005. The permittee is responsible for any downtime associated with the replacement, modification, change or repair of the CEMS or COMS. [N.J.A.C. 7:27-22.18(j)]	None.	None.	Comply with the requirement: Upon occurrence of event. The permittee is responsible for contacting the Emission Measurement Section to determine the need for recertification and/or to initiate the recertification process. [N.J.A.C. 7:27-22.18(j)]
19	Each process monitor must be operated at all times when the associated process equipment is operating except during service outage time not to exceed 24 hours per calendar quarter. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee must keep a service log to document any outage. [N.J.A.C. 7:27-22.16(o)]	None.
20	Continuous recording for process monitors must be at a sufficient frequency and resolution to be able to document compliance or non-compliance in accordance with Technical Manual 1005 for CEMS (TM1005(B)(3). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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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: **IS1 Three Tanks (<10,000 gal. and vapor pressure <0.02 psia)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Other: Monitored by fuel sulfur content on invoices/bills of lading for each delivery.[N.J.A.C. 7:27- 9.2(b)].	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.

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Facility Specific Requirements

Subject Item: **IS2 Diesel Fire Pump engine (less than 1MMBtu/hr)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary internal combustion engines no greater than 20% opacity, exclusive of visible, condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	Other: Periodic visual inspections.[N.J.A.C. 7:27- 3.5].	None.	None.
2	Sulfur Content in Fuel <= 15 ppmw. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Other: Monitored by fuel sulfur content on invoices/bills of lading for each delivery.[N.J.A.C. 7:27- 9.2(b)].	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27- 9.2(b)]	None.
3	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
4	The owner or operator of a 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 has an option of utilizing an oil analysis program, at the same frequency specified for changing the oil, in order to extend the specified oil change requirement, per 40 CFR 63.6625(j). 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	An owner or operator of an existing stationary 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.
6	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.
7	The owner or operator of a 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.
8	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
9	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.
10	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 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. The owner or operator is not required to comply with notification requirements in Table 8 as specified in 40 CFR 63.6645(a)(5). [40 CFR 63.6665]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR1 NOX Averaging Plan Emission Units**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Nitrogen oxides (NOx): 1. The actual NOx emissions from each averaging unit in the designated set shall not exceed the maximum allowable NOx emission rate specified in the approved NOx Averaging Plan for that averaging unit over the applicable averaging period. 2. The sum of the actual NOx emissions from all averaging units in the designated set, averaged over the applicable averaging period, shall not exceed the sum of the allowable NOx emissions for all averaging units calculated in accordance with the approved NOx Averaging Plan. (See Appendix II for the detailed NOx Averaging Plan). [N.J.A.C. 7:27-19.6(d)]	Nitrogen oxides (NOx): Monitored by calculations daily, based on one calendar day. As specified in the Approved NOx Averaging and Alternative Monitoring Plan, actual emissions from the combustion turbine(s) will be calculated based on the most recent stack test results and the actual fuel usage for the averaging period. Actual NOx emissions for the starter diesel engine(s) will be determined based on the most recent stack test results and the actual fuel usage for the averaging period . If valid stack test results are not available, actual emissions for the starter diesels will be based on engine ratings and the actual operating hours for the averaging period. This is consistent with the alternative monitoring requirements in N.J.A.C.7:27-19.18(e). For the period from May 1 through September 30 of each year, the averaging period shall be each calendar day. [N.J.A.C. 7:27-19.6(f)1]	Nitrogen oxides (NOx): Recordkeeping by manual logging of parameter or storing data in a computer data system daily. During the period from May 1 to September 30 of each year, the actual and allowed NOx emissions from each averaging unit and the designated set of averaging units for each calendar day will be calculated and recorded within three working days. The following records will be maintained in a permanently bound logbook or an electronic method, in a format that enables the Department to readily determine whether the designated set and each averaging unit are in compliance: 1. The unique identifier for each averaging unit included in the designated set; 2. The time period for which the data is being recorded; 3. The date when the data was recorded; 4. The amount, type and higher heating value of the fuel(s) consumed over the subject time period; 5. The amount of NOx (in lbs) emitted by each averaging unit over the subject time period; 6. Whether the amount exceeds the maximum allowable rate for the averaging unit specified in the approved Averaging Plan; 7. The sum of the NOx emissions (in lbs) for all averaging units during the subject time period; 8. The calculated total allowable NOx emissions for all averaging units during the subject time period; and 9. Any other information required to be maintained as a condition of approval of the NOx Averaging Plan. Records shall be maintained for five years from the date each record was made. [N.J.A.C. 7:27-19.6(g)]	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) The quarterly report shall contain 1. The unique identifier for each averaging unit included in the designated set; 2. The time period for which the data is being reported; 3. In the reports for the quarters ending March 31 and December 31, the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for each 30-day period ending on a calendar day within the quarter; 4. In the report for the quarter ending June 30 the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for: i. each 30-day period ending on a calendar day from April 1 through May 14, inclusive; and ii. each calendar day from May 15 through June 30, inclusive; and 5. In the report for the quarter ending September 30, the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for each calendar day in the quarter. Quarterly reports shall be sent to the address specified in N.J.A.C. 7:27-19.6(k). [N.J.A.C. 7:27-19.6(h)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	Nitrogen oxides (NOx): 1. The actual NOx emissions from each averaging unit in the designated set shall not exceed the maximum allowable NOx emission rate specified in the approved NOx Averaging Plan for that averaging unit over the applicable averaging period. 2. The sum of the actual NOx emissions from all averaging units in the designated set, averaged over the applicable averaging period, shall not exceed the sum of the allowable NOx emissions for all averaging units calculated in accordance with the approved NOx Averaging Plan. (See Appendix II for the detailed NOx Averaging Plan). [N.J.A.C. 7:27-19.6(d)]	Nitrogen oxides (NOx): Monitored by calculations each month during operation, based on a 30 day rolling average. As specified in the Approved NOx Averaging and Alternative Monitoring Plan, actual emissions from the combustion turbine(s) will be calculated based on the most recent stack test results and the actual fuel usage for the averaging period. Actual NOx emissions for the starter diesel engine(s) will be determined based on the most recent stack test results and the actual fuel usage for the averaging period. If valid stack test results are not available, actual emissions for the starter diesels will be based on engine ratings and the actual operating hours for the averaging period. This is consistent with the alternative monitoring requirements in N.J.A.C.7:27-19.18(e). For the period from October 1 through April 30 of each year, the averaging period shall be the 30-day period ending on each calendar day. [N.J.A.C. 7:27-19.6(f)1]	Nitrogen oxides (NOx): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. During the period from October 1 to April 30 of each year, the actual and allowed NOx emissions from each averaging unit and the designated set of averaging units for each calendar day will be calculated and recorded by the 15th day of the month for all 30-day periods in the previous month. The following records will be maintained in a permanently bound logbook or an electronic method, in a format that enables the Department to readily determine whether the designated set and each averaging unit are in compliance: 1. The unique identifier for each averaging unit included in the designated set; 2. The time period for which the data is being recorded; 3. The date when the data was recorded; 4. The amount, type and higher heating value of the fuel(s) consumed over the subject time period; 5. The amount of NOx (in lbs) emitted by each averaging unit over the subject time period; 6. Whether the amount exceeds the maximum allowable rate for the averaging unit specified in the approved Averaging Plan; 7. The sum of the NOx emissions (in lbs) for all averaging units during the subject time period; 8. The calculated total allowable NOx emissions for all averaging units during the subject time period; and 9. Any other information required to be maintained as a condition of approval of the NOx Averaging Plan. Records shall be maintained for five years from the date each record was made. [N.J.A.C. 7:27-19.6(g)]	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) The quarterly report shall contain 1. The unique identifier for each averaging unit included in the designated set; 2. The time period for which the data is being reported; 3. In the reports for the quarters ending March 31 and December 31, the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for each 30-day period ending on a calendar day within the quarter; 4. In the report for the quarter ending June 30 the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for: i. each 30-day period ending on a calendar day from April 1 through May 14, inclusive; and ii. each calendar day from May 15 through June 30, inclusive; and 5. In the report for the quarter ending September 30, the actual and maximum allowable NOx emission rates for each emission unit and the total actual and allowable NOx emissions for all of the averaging units for each calendar day in the quarter. Quarterly reports shall be sent to the address specified in N.J.A.C. 7:27-19.6(k). [N.J.A.C. 7:27-19.6(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Report of non-compliance with the NOx averaging plan limitations. (See Appendix II for the detailed NOx Averaging Plan). [N.J.A.C. 7:27-19.6(i)]	None.	None.	Submit a report: Within 2 working days after the date on which the owner or operator was required to calculate and record the compliance information under NJAC 7:27-19(f), if the total NOx emissions from the designated set or the NOx emission rate from any averaging unit exceeds the total allowable emissions or applicable maximum allowable emission rate determined in accordance with the approved NOx Averaging Plan, for any averaging period, the owner or operator shall deliver (as opposed to send) written notice of the non-compliance to the Regional Enforcement Officer at the address specified in N.J.A.C. 7:27-19.3(i). The notification shall include the following information: 1. The name of the owner or operator; 2. The name and telephone number of the person specified in the approved NOx Averaging Plan as responsible for the recordkeeping; 3. All information required to be recorded for each calendar day or 30-day period as appropriate; 4. A statement of the reason(s) for the non-compliance, if known; and 5. Certification of the notification, in accordance with N.J.A.C. 7:27-1.39. [N.J.A.C. 7:27-19.6(i)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	If one of the averaging units for which the maximum allowable emission rate in the NOx Averaging Plan is less than the applicable NOx emission rate limit in N.J.A.C. 7:27-19 (i.e. one or both of the combustion turbines) cannot be operated due to sudden and reasonably unforeseeable circumstances beyond the control of the owner or operator, including, but not limited to, a Generator Forced/Unplanned Outage as defined by PJM Manual 35: Definitions and Acronyms, Revision: 14, Effective Date: October 21, 2008 at http://www.pjm.com/documents/manuals/~/n which definition is incorporated herein by reference, as supplemented or amended, the owner or operator shall take the following actions provided in Monitoring Requirement and Submittal /Action Requirement. (See Appendix II for the detailed NOx Averaging Plan). [N.J.A.C. 7:27-19.6(j)]	Monitored by calculations at the approved frequency. In determining whether the designated averaging unit set is in compliance with the total allowable emissions during the period when the averaging unit cannot be operated, assume that the NOx emissions and heat input for the non-operational averaging unit for each of the first 15 days of non-operation (or such longer period, not to exceed six months, as the Department determines is necessary to repair the averaging unit based on the information submitted under N.J.A.C. 7:27-19.6(j)2) are equal to the actual emissions and heat input for that unit on the most recent comparable demand day. For each day after the end of the period described above, assume that the NOx emissions and heat input for the non-operational averaging unit are zero. [N.J.A.C. 7:27-19.6(j)3]	None.	Submit a report: Within 2 working days after the averaging unit ceased operating, deliver (as opposed to send) written preliminary notice to the Department. This preliminary notice shall be followed up within 30 calendar days of the occurrence of the incident certifying the information in accordance with N.J.A.C. 7:27-1.39. In the written notice, the owner or operator shall identify the unit which is or was not operating, and state why it is or was not operating. If circumstances beyond the control of the owner or operator make it impracticable either to repair the averaging unit within 15 calendar days after it ceased operating, or to comply with the averaging plan without operating the unit (for example, through reducing the operations of another unit and purchasing electric power from another source), include in the notice an explanation of those circumstances and an estimate of the time required to repair the averaging unit. [N.J.A.C. 7:27-19.6(j)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR2 CO2 Budget Trading Program Emission Units**

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

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Facility Specific Requirements

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

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Facility Specific Requirements

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

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

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

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Facility Specific Requirements

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

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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)]

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

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

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Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 60 Subpart A 40 CFR 60 Subpart GG 40 CFR 97. [40 CFR Federal Rules Summary]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	STACK TESTING SUMMARY: The Permittee shall conduct a stack test no later then every five years (See General Provisions) from the last stack test. Three tests shall be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition at ambient relative humidity and temperature. The permittee shall submit to EMS all data necessary to substantiate the ambient maximum conditions. Stack testing shall be conducted for the base, peak, and low load operating scenarios for both natural gas and distillate oil-fired operations (as noted below) and are not dependent on the facility's option to operate at such loads. Heat input, both HHV and LHV, to the turbine, and water-to-fuel ratio for the water injection system shall be determined for each test. The water injection system shall be operated during all oil-fired tests unless otherwise noted. Stack emission testing shall be conducted at base load for VOC, CO, NOx, SO2, TSP and PM-10 during oil-fired operation. Stack testing for CO and NOx is required at base and peak operating loads while firing natural gas. In addition, stack testing for VOC, CO and NOx shall be conducted at low load while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). 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.[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. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 380-01A, PO Box 420, Trenton, NJ 08625 no later then 12 months prior the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-530-4041 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. A copy of the test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit. Test results shall report lbs/hour, lbs/MMBtu, ppm (as needed). [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]
3	VOC (Total) <= 50 ppmvd @ 15% O2. Maximum emission concentration. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	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.
5	CO <= 250 ppmvd @ 15% O2. Maximum emission concentration. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]

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 the procedure set forth at N.J.A.C. 7:27-19.16, in order to optimize the emission of NOx, CO and VOC. 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)]	Other: The owner or operator of a stationary combustion turbine or reciprocating engine shall ensure that the adjustment of the combustion process is carried out according to the manufacturer's recommended procedures and maintenance schedules.[N.J.A.C. 7:27-19.16(g)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment The owner or operator of a stationary combustion turbine adjusted pursuant to N.J.A.C. 7:27-19.16(g) shall ensure that each adjustment is recorded in a log book or computer data system and retained for a minimum of five years, to be readily accessible to the department upon request. Such record shall contain the following information (parameters) for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NOx, CO and O2 measured before and after the adjustment was made; and 5. The type and amount of fuel used since the last combustion adjustment was performed. [N.J.A.C. 7:27-19.16(h)]	None.
7	CO <= 45 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [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
8	VOC (Total) <= 3 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
9	SO2 <= 27 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
10	NOx (Total) <= 46 tons/yr. Annual emission limit. Applicable after the installation and commissioning of the DLN combustion system. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
11	PM-10 (Total) <= 7 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
12	Total HAPs <= 0.414 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	TSP <= 7 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [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
14	Acetaldehyde <= 27 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 4.0E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Acrolein <= 4.32 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the following fuel heating value (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Arsenic compounds <= 2.34 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factor (Oil: 1.1E-05 lb/MMBtu) and the following fuel heating value (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Benzene <= 19.8 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 1.2E-05 lb/MMBtu, Oil: 5.5E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Beryllium Emissions <= 0.07 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 3.1E-07 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Butadiene (1,3-) <= 3.69 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 4.3E-07 lb/MMBtu, Oil: 1.6E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [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
20	Cadmium Emissions <= 1.02 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factor (Oil: 4.8E-06 lb/MMBtu) and the following fuel heating value (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Ethylbenzene <= 21.6 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 3.2E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Formaldehyde <= 538.83 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 7.1E-04 lb/MMBtu, Oil: 2.8E-04 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Lead compounds <= 2.98 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 1.4E-05 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Manganese compounds <= 168.09 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 7.90E-04 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Naphthalene <= 8.32 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 1.3E-06 lb/MMBtu, Oil: 3.5E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Nickel compounds <= 0.98 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 4.6E-06 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Polycyclic organic matter <= 10 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 2.2E-06 lb/MMBtu, Oil: 4.0E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Propylene oxide <= 19.58 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 2.9E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	The water injection system shall be operational at all times during oil-fired operations of the combustion turbine, except during start-up, shutdown, maintenance calibration, low load operation and fuel switching periods. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Dry low NOx combustors shall be operational at all times during gas firing operation of the turbine except during start-up, shutdown, maintenance calibration and fuel switching periods. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
31	Combustion turbine fuel limited to natural gas, #2 fuel oil and #2 fuel oil blended with lighter distillate based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
32	Fuel Oil Usage <= 1.5 MMgals per any 365 consecutive day period. Annual #2 fuel oil limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Fuel Oil 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)]	Fuel Oil Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on 365-day period computed with daily sums. Gallons of #2 fuel oil consumed during any consecutive 365-day period shall be calculated by adding the oil consumption for a given day to the gallons of oil consumed during the preceding 364-day period. This procedure will begin 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(o)]	None.
33	Combustion turbine loading shall be measured in megawatts of electrical power output. [N.J.A.C. 7:27-22.16(e)]	Other: Load meter, continuously.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
34	Maximum Gross Heat Input <= 887,775 MMBTU (HHV) per any 365 consecutive day period. Annual heat input based on annual fuel use. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis) and calculations. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: 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. Total annual heat input during any consecutive 365-day period shall be calculated by adding the total heat input for a given day to the total heat input during the preceding 364-day period. Daily MMBTU fuel use shall be calculated using the following formula: MMBTU/day = [(Y BTU/scf x scf of natural gas consumed by the turbine per day) + (Y' BTU/gal x gallons of #2 fuel oil consumed by the turbine per day)] /1,000,000 where Y = Heating Value of natural gas @ 1020 BTU/scf Y' = Heating Value of #2 fuel oil @ 141,850 BTU/gal This procedure will begin the first day following the issuance of the Operating Permit. This accounting will not include heat input for the days prior to the Operating Permit approval. [N.J.A.C. 7:27-22.16(o)]	Submit a report: As per the approved schedule , verify compliance with annual emission limits based on fuel usage. Results shall be reported annually within 45 days of the close of the calendar year. [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
35	Natural Gas Usage <= 661.765 MMft^3 per any 365 consecutive day period. Annual natural gas use limit from preconstruction permit. [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 365 consecutive day period computed with daily sums. Cubic feet of natural gas consumed during any consecutive 365-day period shall be calculated by adding the natural gas consumption for a given day to the cubic feet of natural gas consumed during the preceding 364-day period. This procedure will begin the first day following the issuance of the Operating Permit. This accounting shall not include natural gas consumption for the days prior to the Operating Permit approval. [N.J.A.C. 7:27-22.16(o)]	None.
36	Operating logs for exceedance of emission standards determined by continuous monitoring and continuous recording, fuel quality and duration of start-ups, shutdowns and fuel transfer periods shall be maintained for each unit in a manner approved by the Regional Enforcement Officer. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Recordkeeping per method approved by the Department. (See Applicable Requirement).[N.J.A.C. 7:27-22.16(o)].	None.
37	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.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
38	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. [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. 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)]
39	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.
40	Copies of all information submitted to the EPA pursuant to 40 CFR Part 60, shall also be submitted to the Central Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the Central Regional Office as required by 40 CFR 60. Submit to: Central Regional Office NJDEP PO BOx 407 Trenton, NJ 08625-0407. [40 CFR 60.4(b)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
41	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)]
42	The owner or operator shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Permittee shall maintain a permanent record of the parameters specified in 40 CFR 60.7(b). [40 CFR 60.7(b)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
43	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.
44	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.
45	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.	Demonstrate compliance: 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)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
46	NOx (Total) <= 91.9 ppmdv @ 15% O2. [40 CFR 60.332(a)(1)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]
47	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 for subpart GG requires such monitoring. [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)]
48	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 fuel sampling (e.g. oil) 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.
49	The owner or operator of a turbine that uses steam or water injection shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water (or steam) to fuel being fired in the turbine. This system shall be accurate to within +/- 5.0 percent and shall be approved by the Administrator. [40 CFR 60.334(a)]	Monitored by water-to-fuel monitoring device continuously. [40 CFR 60.334(a)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 60.334]	None.
50	The owner or operator of a turbine on which the steam or water to fuel ratio or other parameters are being continuously monitored shall develop and keep on -site a parameter monitoring plan which explains the procedure used to document proper operation of the NOx emission controls. [40 CFR 60.334(g)]	None.	Recordkeeping by other recordkeeping method (provide description) once initially. The parameter monitoring plan shall include information required by 40 CFR 60.334(g). [40 CFR 60.334(g)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
51	Nitrogen oxides (NOx): 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 are defined as any unit operating hour period during 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; or, if the owner or operator elects to take an emission allowance for fuel bound nitrogen, the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in 60.8 and used to determine the allowance. Any unit operating hour in which no water or steam is injected shall also be considered an excess emissions. [40 CFR 60.334(j)(1)]	None.	None.	Submit a report: Other - semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period and shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. The ambient conditions need not be reported if the worst case ISO correction factor as specified in 60.334(b)(3)(ii) is used, or if the ISO correction equation under the provisions of 60.335(b)(1) is not used. [40 CFR 60.7(c)] &. [40 CFR 60.334(j)(1)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
52	SO2: 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 as each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. A period of monitor downtime begins when a required sample is not taken by its due date or on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(2)]	None.	None.	Submit a report: Other - semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)] &. [40 CFR 60.334(j)(2)]
53	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. (See Appendix III). [40 CFR 97]	Other: As per the applicable requirement. (See Appendix III).[40 CFR 97].	Other: As per the applicable requirement. (See Appendix III).[40 CFR 97].	Other (provide description): Other. As per the applicable requirement. (See Appendix III). [40 CFR 97]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS1 Gas firing: base 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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 55 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	NOx (Total) <= 14 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
5	NOx (Total) <= 0.05 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 26 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	CO <= 42 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
8	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	CO <= 38 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
11	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]
17	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
18	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
19	Acetaldehyde <= 0.022 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
20	Acrolein <= 0.004 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Benzene <= 0.007 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Butadiene (1,3-) <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
23	Ethylbenzene <= 0.018 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	Formaldehyde <= 0.391 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Naphthalene <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
26	Polycyclic organic matter <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Propylene oxide <= 0.016 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
28	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.

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Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS2 Oil firing: base 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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary turbine engines no greater than 10% opacity, exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)2]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions <= 55 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	NOx (Total) <= 0.2 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 43 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
9	NOx (Total) <= 100 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	SO2 <= 0.24 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
10	VOC (Total) <= 7 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
11	PM-10 (Total) <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
12	TSP <= 20 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
13	SO2 <= 104 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
14	CO <= 48 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	CO <= 50 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
16	TSP <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
18	VOC (Total) <= 5 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
17	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 stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Water-to-Fuel Ratio: The ratio of the NOx Control Water injection rate (in lbs/sec) to fuel use rate (in lbs/sec) will be maintained at or above the minimum water-to-fuel ratio from the applicable curve in Appendix I of this Permit. The Heat Input rate (in MMBTU/hr) used to determine the minimum water-to-fuel ratio from the curve will be based on the actual fuel consumption and the lower heating value (LHV) of the fuel. For heat input values between data points on the curve, the minimum water-to-fuel ratio will be determined by linear interpolation. For heat input values that are less than the lowest or more than the highest heat input data point on the curve, the minimum water-to-fuel ratio will be determined by linear extrapolation. Compliance with the minimum water-to-fuel ratio will be based on a 1-hour block average. [N.J.A.C. 7:27-22.16(a)]	Monitored by water-to-fuel monitoring device continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
20	PM-10 (Total) <= 21.6 lb/hr. Maximum emission rate based on 0.048 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
21	Fuel limited to #2 fuel oil or #2 fuel oil blended with lighter distillate, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	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. "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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]
23	Arsenic compounds <= 0.006 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.1E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Benzene <= 0.03 lb/hr. Emission limit based on AP-42 emission factor (Oil: 5.5E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Beryllium compounds <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.1E-07 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
26	Butadiene (1,3-) <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.6E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	Cadmium Emissions <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.8E-06) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Formaldehyde <= 0.154 lb/hr. Emission limit based on AP-42 emission factor (Oil: 2.8E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Lead compounds <= 0.008 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.4E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
30	Manganese compounds <= 0.435 lb/hr. Emission limit based on AP-42 emission factor (Oil: 7.9E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
31	Naphthalene <= 0.019 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.5E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
32	Nickel compounds <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.6E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
33	Polycyclic organic matter <= 0.022 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.0E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
34	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS3 Gas firing: peak 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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 59 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	NOx (Total) <= 29 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
5	NOx (Total) <= 0.11 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 64 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [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	CO <= 38 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
8	CO <= 48 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
9	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	SO2 <= 0.11 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]
18	Maximum Gross Heat Input <= 590 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.
19	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
20	Acrolein <= 0.004 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Acetaldehyde <= 0.024 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
22	Benzene <= 0.007 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Butadiene (1,3-) <= 0.0003 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
24	Ethylbenzene <= 0.019 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Formaldehyde <= 0.419 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Naphthalene <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
27	Polycyclic organic matter <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Propylene oxide <= 0.017 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (590 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
29	The combustion turbine may be operated at peak load if instructed by PJM grid. [N.J.A.C. 7:27-22.16(e)]	Other: Load meter, continuously.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS5 Gas firing: startup**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 20 % During start up periods visible emissions exclusive of condensed water vapor shall not exceed 20% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 55 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Start-up Period <= 30 minutes. Start-up is defined as that period of time from initiation of fuel firing for the operation of the combustion turbine until that combustion turbine reaches steady state operation. [N.J.A.C. 7:27-22.16(e)]	Start-up Period: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
5	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.
6	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]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS6 Oil firing: startup**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)3]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	Opacity <= 20 %. During start up periods visible emissions exclusive of condensed water vapor shall not exceed 20% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [N.J.A.C. 7:27-22.16(o)]	None.
3	Particulate Emissions <= 55 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
7	Start-up Period <= 30 minutes. Start-up is defined as that period of time from initiation of fuel firing for the operation of the combustion turbine until that combustion turbine reaches steady state operation. [N.J.A.C. 7:27-22.16(e)]	Start-up Period: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
8	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]	None.	None.	None.

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Facility Specific Requirements

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

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Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS7 Gas firing: shutdown**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 20 % During start up periods visible emissions exclusive of condensed water vapor shall not exceed 20% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 55 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Shutdown Period <= 30 minutes Shutdown is defined as that period of time from the initial lowering of combustion turbine output, below steady state operating load, to the cessation of fuel firing for that combustion turbine's operation. [N.J.A.C. 7:27-22.16(e)]	Shutdown Period: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
5	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.
6	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]	None.	None.	None.

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Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS8 Oil firing: shutdown**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	Opacity: Monitored by visual determination at the approved frequency. A certified smoke reader shall conduct visual observations once every 100 hours of oil firing of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)3]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	Opacity <= 20 %. During start up periods visible emissions exclusive of condensed water vapor shall not exceed 20% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [N.J.A.C. 7:27-22.16(o)]	None.
3	Particulate Emissions <= 55 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	Shutdown Period <= 30 minutes Shutdown is defined as that period of time from the initial lowering of combustion turbine output, below steady state operating load, to the cessation of fuel firing for that combustion turbine's operation. [N.J.A.C. 7:27-22.16(e)]	Shutdown Period: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
7	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.
8	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]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS9 Gas firing: maintenance calibration**

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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 22 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [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
9	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
14	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]	None.	None.	None.
15	Acetaldehyde <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
16	Acrolein <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Benzene <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/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
18	Butadiene (1,3-) <= 0.0001 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
19	Ethylbenzene <= 0.007 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
20	Formaldehyde <= 0.156 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Naphthalene <= 0.0003 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
22	Propylene oxide <= 0.006 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
23	Polycyclic organic matter <= 0.0005 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	The permittee shall notify the Department at least 24 hours prior to maintenance calibration adjustments for the combustion turbine. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit notification: Upon occurrence of event , at least 24 hours prior to maintenance calibration adjustments. Fax notification to: Central Regional Enforcement Office, Telefax Number: (609) 292-6450. [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
25	Hours of Operation <= 2 hours per occurrence; total number of occurrences not to exceed 5 separate occurrences per year (for gas and oil operation combined). During maintenance calibration adjustment periods, the permittee is not required to operate the water injection system to control NOx emissions unless load exceeds 30% of base load. [N.J.A.C. 7:27-22.16(e)]	Hours of Operation: Monitored by hour/time monitor continuously , and load meter, 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 continuously. Records shall show start time, end time, date, total period, and the name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
26	Maximum Gross Heat Input <= 220 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS10 Oil firing: maintenance calibration**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 % Smoke emissions from stationary turbine engines no greater than 10% opacity, exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)2]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions <= 22 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	VOC (Total) <= 5 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	SO2 <= 104 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	VOC (Total) <= 7 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	SO2 <= 0.24 lb/MMBTU. Maximum emission rate from preconstruction permit. [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
11	The permittee shall notify the Department at least 24 hours prior to maintenance calibration adjustments for the combustion turbine. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit notification: Upon occurrence of event , at least 24 hours prior to maintenance calibration adjustments. Fax notification to: Central Regional Enforcement Office, Telefax Number: (609) 292-6450. [N.J.A.C. 7:27-22.16(o)]
12	TSP <= 20 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	TSP <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	PM-10 (Total) <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	PM-10 (Total) <= 20 lb/hr. Maximum emission rate based on 0.047 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Fuel limited to #2 fuel oil or #2 fuel oil blended with lighter distillate, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
17	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]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
18	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. "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]	None.	None.	None.
19	Hours of Operation <= 2 hours per occurrence; total number of occurrences not to exceed 5 separate occurrences per year (for gas and oil operation combined). During maintenance calibration adjustment periods, the permittee is not required to operate the water injection system to control NOx emissions unless load exceeds 30% of base load. [N.J.A.C. 7:27-22.16(e)]	Hours of Operation: Monitored by hour/time monitor continuously , and load meter, 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 continuously. Records shall show start time, end time, date, total period, and the name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
20	Maximum Gross Heat Input <= 220 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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	Arsenic compounds <= 0.002 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.1E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Benzene <= 0.012 lb/hr. Emission limit based on AP-42 emission factor (Oil: 5.5E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Beryllium compounds <= 0.0001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.1E-07 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
24	Butadiene (1,3-) <= 0.004 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.6E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
25	Cadmium Emissions <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.8E-06) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Formaldehyde <= 0.062 lb/hr. Emission limit based on AP-42 emission factor (Oil: 2.8E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Lead compounds <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.4E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
28	Manganese compounds <= 0.174 lb/hr. Emission limit based on AP-42 emission factor (Oil: 7.9E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
29	Naphthalene <= 0.008 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.5E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Nickel compounds <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.6E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
31	Polycyclic organic matter <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.0E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1302 Combustion Turbine #1 - simple cycle turbine (46 MW)**
Operating Scenario: **OS11 Gas firing: low load (30 MW)**

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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 43 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	NOx (Total) <= 0.2 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
5	NOx (Total) <= 86 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
6	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [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	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
11	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
12	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
15	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Acetaldehyde <= 0.017 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
18	Butadiene (1,3-) <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
19	Ethylbenzene <= 0.014 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
20	Naphthalene <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
21	Propylene oxide <= 0.012 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
22	Hours of Operation <= 570 hr/yr. Maximum time limitation for low load operation. [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 (permanently bound). Records shall be kept of each period of low load operation, showing start time, end time, date, reason for low load operation, and the name of the operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Low load is defined as the minimum load at which the turbine can comply with all permitted emission limits (30 MW output). Low load operation is allowed for Equipment maintenance. [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. Records shall be kept of each period of low load operation, showing start time, end time, date, reason for low load operation, and the name of the operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
24	Acrolein <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Benzene <= 0.005 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Formaldehyde <= 0.305 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Polycyclic organic matter <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Maximum Gross Heat Input <= 430 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.

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Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 60 Subpart A 40 CFR 60 Subpart GG 40 CFR 97 [40 CFR Federal Rules Summary]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	STACK TESTING SUMMARY: The Permittee shall conduct a stack test no later than every five years (See General Provisions) from the last stack test. Three tests shall be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition at ambient relative humidity and temperature. The permittee submit to EMS all data necessary to substantiate the ambient maximum conditions. Stack testing shall be conducted for the base and low load operating scenarios for natural gas and the base load operating scenario for distillate oil-fired operations and are not dependent on the facility's option to operate at such loads. Heat input, both HHV and LHV, to the turbine, and water-to-fuel ratio for the water injection system shall be determined for each test. The water injection system shall be operated during oil-fired test unless otherwise noted. Stack emission testing shall be conducted at base load for VOC, CO, NOx, SO2, TSP and PM-10 during oil-fired operation. Stack testing for CO and NOx is required at base and low loads while firing natural gas. In addition, stack testing for VOC shall be conducted at low load while firing natural gas. [N.J.A.C. 7:27-22.16(a)]	Other: Monitoring as required under the applicable operating scenario(s). 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.[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(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 380-01A, PO Box 420, Trenton, NJ 08625 at least 12 months prior to the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-530-4041 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. A copy of the test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit. Test results shall report lbs/hour, lbs/MMBtu, ppm (as needed). [N.J.A.C. 7:27-22.18(e)] and . [N.J.A.C. 7:27-22.18(h)]
3	CO <= 250 ppmvd @ 15% O2. Maximum emission concentration. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(b)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	VOC (Total) <= 50 ppmvd @ 15% O2. Maximum emission concentration. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-16.9(c)]
5	PM-10 (Total) <= 7 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
6	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.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	The Permittee shall adjust the combustion process in accordance with the procedure set forth at N.J.A.C. 7:27-19.16, in order to optimize the emission of NOx, CO and VOC. 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)]	Other: The owner or operator of a stationary combustion turbine or reciprocating engine shall ensure that the adjustment of the combustion process is carried out according to the manufacturer's recommended procedures and maintenance schedules.[N.J.A.C. 7:27-19.16(g)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment The owner or operator of a stationary combustion turbine adjusted pursuant to N.J.A.C. 7:27-19.16(g) shall ensure that each adjustment is recorded in a log book or computer data system and retained for a minimum of five years, to be readily accessible to the department upon request. Such record shall contain the following information (parameters) for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NOx, CO and O2 measured before and after the adjustment was made; and 5. The type and amount of fuel used since the last combustion adjustment was performed. [N.J.A.C. 7:27-19.16(h)]	None.
8	CO <= 45 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [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
9	NOx (Total) <= 46 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
10	VOC (Total) <= 3 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
11	SO2 <= 27 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
12	TSP <= 7 tons/yr. Annual emission limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit a report: As per the approved schedule , submit calendar year fuel use records to the Central Regional Office within 45 days of the close of the calendar. Only summarized fuel use data for the January 1- December 31 period shall be submitted. [N.J.A.C. 7:27-22.16(o)]
13	Total HAPs <= 0.414 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Acetaldehyde <= 27 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 4.0E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [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
15	Acrolein <= 4.32 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factor (NG: 6.40E-06 lb/MMBtu) and the following fuel heating value (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Arsenic compounds <= 2.34 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factor (Oil: 1.10E-05 lb/MMBtu) and the following fuel heating value (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Benzene <= 19.8 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 1.20E-05 lb/MMBtu, Oil: 5.50E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Beryllium Emissions <= 0.07 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 3.1E-07 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Butadiene (1,3-) <= 3.69 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 4.3E-07 lb/MMBtu, Oil: 1.6E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Cadmium Emissions <= 1.02 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factor (Oil: 4.80E-06 lb/MMBtu) and the following fuel heating value (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Ethylbenzene <= 21.6 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 3.2E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Formaldehyde <= 538.83 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 7.10E-04 lb/MMBtu, Oil: 2.80E-04 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Lead compounds <= 2.98 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 1.4E-05 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Manganese compounds <= 168.09 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 7.90E-04 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Naphthalene <= 8.32 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 1.3E-06 lb/MMBtu, Oil: 3.5E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	Nickel compounds <= 0.98 lb/yr. Annual emission limit based on maximum fuel usage (Oil: 1.5 MMgal/yr), AP-42 emission factors (Oil: 4.6E-06 lb/MMBtu) and the following fuel heating values (Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Polycyclic organic matter <= 10 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr, Oil: 1.5 MMgal/yr), AP-42 emission factors (NG: 2.20E-06 lb/MMBtu, Oil: 4.00E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf, Oil: 141,850 MMBtu/MMgal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Propylene oxide <= 19.58 lb/yr. Annual emission limit based on maximum fuel usage (NG: 661.765 MMScf/yr), AP-42 emission factors (NG: 2.9E-05 lb/MMBtu) and the following fuel heating values (NG:1020 MMBtu/MMScf). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Natural Gas Usage <= 661.765 MMft^3 per any 365 consecutive day period. Annual natural gas use limit from preconstruction permit. [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 365 consecutive day period computed with daily sums. Cubic feet of natural gas consumed during any consecutive 365-day period shall be calculated by adding the natural gas consumption for a given day to the cubic feet of natural gas consumed during the preceding 364-day period. This procedure will begin the first day following the issuance of the Operating Permit. This accounting shall not include natural gas consumption for the days prior to the Operating Permit approval. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Combustion turbine fuel limited to natural gas, #2 fuel oil and #2 fuel oil blended with lighter distillate based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
31	Fuel Oil Usage <= 1.5 MMgals per any 365 consecutive day period. Annual #2 fuel oil limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Fuel Oil 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)]	Fuel Oil Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on 365-day period computed with daily sums. Gallons of #2 fuel oil consumed during any consecutive 365-day period shall be calculated by adding the oil consumption for a given day to the gallons of oil consumed during the preceding 364-day period. This procedure will begin 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(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	Maximum Gross Heat Input <= 887,775 MMBTU (HHV) per any 365 consecutive day period. Annual heat input based on annual fuel use. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis) and calculations. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: 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. Total annual heat input during any consecutive 365-day period shall be calculated by adding the total heat input for a given day to the total heat input during the preceding 364-day period. Daily MMBTU fuel use shall be calculated using the following formula: MMBTU/day = [(Y BTU/scf x scf of natural gas consumed by the turbine per day) + (Y' BTU/gal x gallons of #2 fuel oil consumed by the turbine per day)] /1,000,000 where Y = Heating Value of natural gas @ 1020 BTU/scf Y' = Heating Value of #2 fuel oil @ 141,850 BTU/gal This procedure will begin the first day following the issuance of the Operating Permit. This accounting will not include heat input for the days prior to the Operating Permit approval. [N.J.A.C. 7:27-22.16(o)]	Submit a report: As per the approved schedule , verify compliance with annual emission limits based on fuel usage. Results shall be reported annually within 45 days of the close of the calendar year. [N.J.A.C. 7:27-22.16(o)]
33	Combustion turbine loading shall be measured in megawatts of electrical power output. [N.J.A.C. 7:27-22.16(e)]	Other: Load meter, continuously.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
34	The water injection system shall be operational at all times during oil-fired operations of the combustion turbine, except during start-up, shutdown, maintenance calibration, low load operation and fuel switching periods. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Operating logs for exceedance of emission standards determined by continuous monitoring and continuous recording, fuel quality and duration of start-ups, shutdowns and fuel transfer periods shall be maintained for each unit in a manner approved by the Regional Enforcement Officer. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Recordkeeping per method approved by the Department. (See Applicable Requirement).[N.J.A.C. 7:27-22.16(o)].	None.
36	Dry low NOx combustors shall be operational at all times during gas firing operation of the turbine except during start-up, shutdown, maintenance calibration and fuel switching periods. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
37	The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. [40 CFR 60.7(f)]	None.	Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, all adjustments/maintenance performed on these systems or devices, and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. [40 CFR 60.7(f)].	None.
38	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. [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. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	Copies of all information submitted to the EPA pursuant to 40 CFR Part 60, shall also be submitted to the Central Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the Central Regional Office as required by 40 CFR 60. Submit to: Central Regional Office NJDEP PO Box 407 Trenton, NJ 08625-0407. [40 CFR 60.4(b)]
40	Nitrogen oxides (NOx): 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 are defined as any unit operating hour period during 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; or, if the owner or operator elects to take an emission allowance for fuel bound nitrogen, the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in 60.8 and used to determine the allowance. Any unit operating hour in which no water or steam is injected shall also be considered an excess emissions. [40 CFR 60.334(j)(1)]	None.	None.	Submit a report: Other - semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period and shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. The ambient conditions need not be reported if the worst case ISO correction factor as specified in 60.334(b)(3)(ii) is used, or if the ISO correction equation under the provisions of 60.335(b)(1) is not used. [40 CFR 60.7(c)] &. [40 CFR 60.334(j)(1)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
41	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)]
42	The owner or operator shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Permittee shall maintain a permanent record of the parameters specified in 40 CFR 60.7(b). [40 CFR 60.7(b)]	None.
43	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.	Demonstrate compliance: 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
44	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.
45	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR Part 60 shall be used. [40 CFR 60.13(f)]	None.	None.	None.
46	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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
47	NOx (Total) <= 90 ppmvd @ 15% O2. [40 CFR 60.332(a)(1)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [40 CFR 60.332(a)(1)]
48	The owner or operator of a turbine on which the steam or water to fuel ratio or other parameters are being continuously monitored shall develop and keep on -site a parameter monitoring plan which explains the procedure used to document proper operation of the NOx emission controls. [40 CFR 60.334(g)]	None.	Recordkeeping by other recordkeeping method (provide description) once initially. The parameter monitoring plan shall include information required by 40 CFR 60.334(g). [40 CFR 60.334(g)]	None.
49	SO2: 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 as each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. A period of monitor downtime begins when a required sample is not taken by its due date or on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(2)]	None.	None.	Submit a report: Other - semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)] &. [40 CFR 60.334(j)(2)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
50	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 fuel sampling (e.g. oil) 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.
51	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 for subpart GG requires such monitoring. [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)]
52	The owner or operator of a turbine that uses steam or water injection shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water (or steam) to fuel being fired in the turbine. This system shall be accurate to within +/- 5.0 percent and shall be approved by the Administrator. [40 CFR 60.334(a)]	Monitored by water-to-fuel monitoring device continuously. [40 CFR 60.334(a)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 60.334]	None.
53	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. (See Appendix III). [40 CFR 97]	Other: As per the applicable requirement. (See Appendix III).[40 CFR 97].	Other: As per the applicable requirement. (See Appendix III).[40 CFR 97].	Other (provide description): Other. As per the applicable requirement. (See Appendix III). [40 CFR 97]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS1 Gas firing: base 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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 55 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	NOx (Total) <= 14 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
5	NOx (Total) <= 0.05 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 26 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [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	CO <= 38 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
8	CO <= 42 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
9	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
18	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]
19	Acetaldehyde <= 0.022 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
20	Acrolein <= 0.004 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Benzene <= 0.007 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Butadiene (1,3-) <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
23	Ethylbenzene <= 0.018 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
24	Formaldehyde <= 0.391 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Naphthalene <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
26	Polycyclic organic matter <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Propylene oxide <= 0.016 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
28	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS2 Oil firing: base 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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 %. Smoke emissions from stationary turbine engines no greater than 10% opacity, exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)2]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions <= 55 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	NOx (Total) <= 43 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 0.2 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
8	VOC (Total) <= 7 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	NOx (Total) <= 105 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
10	CO <= 50 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
11	TSP <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
12	SO2 <= 104 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
13	VOC (Total) <= 5 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
14	CO <= 48 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [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
15	SO2 <= 0.24 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
16	Fuel limited to #2 fuel oil or #2 fuel oil blended with lighter distillate, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
17	TSP <= 20 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
18	PM-10 (Total) <= 29.7 lb/hr. Maximum emission rate based on 0.066 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
19	PM-10 (Total) <= 0.066 lb/MMBTU. Maximum emission rate based on stack test TST050002. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three 1-hour tests (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
20	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Water-to-Fuel Ratio: The ratio of the NOx Control Water injection rate (in lbs/sec) to fuel use rate (in lbs/sec) will be maintained at or above the minimum water-to-fuel ratio from the applicable curve in Appendix I of this Permit. The Heat Input rate (in MMBTU/hr) used to determine the minimum water-to-fuel ratio from the curve will be based on the actual fuel consumption and the lower heating value (LHV) of the fuel. For heat input values between data points on the curve, the minimum water-to-fuel ratio will be determined by linear interpolation. For heat input values that are less than the lowest or more than the highest heat input data point on the curve, the minimum water-to-fuel ratio will be determined by linear extrapolation. Compliance with the minimum water-to-fuel ratio will be based on a 1-hour block average. [N.J.A.C. 7:27-22.16(a)]	Monitored by water-to-fuel monitoring device continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
22	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. "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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Maximum Gross Heat Input <= 550 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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.
24	Arsenic compounds <= 0.006 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.1E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Benzene <= 0.03 lb/hr. Emission limit based on AP-42 emission factor (Oil: 5.5E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Beryllium compounds <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.1E-07 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
27	Butadiene (1,3-) <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.6E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
28	Cadmium Emissions <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.8E-06) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Formaldehyde <= 0.154 lb/hr. Emission limit based on AP-42 emission factor (Oil: 2.8E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
30	Lead compounds <= 0.008 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.4E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	Manganese compounds <= 0.435 lb/hr. Emission limit based on AP-42 emission factor (Oil: 7.9E-04 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
32	Naphthalene <= 0.019 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.5E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
33	Nickel compounds <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.6E-06 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
34	Polycyclic organic matter <= 0.022 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.0E-05 lb/MMBtu) and the maximum heat input (550 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**

Operating Scenario: **OS5 Gas firing: startup**

The requirements for this item are identical to those for: U1302 OS5

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS6 Oil firing: startup**

The requirements for this item are identical to those for: U1302 OS6

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**

Operating Scenario: **OS7 Gas firing: shutdown**

The requirements for this item are identical to those for: U1302 OS7

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS8 Oil firing: shutdown**

The requirements for this item are identical to those for: U1302 OS8

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS9 Gas firing: maintenance calibration**

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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 22 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	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]	None.	None.	None.
14	Acetaldehyde <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
15	Acrolein <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Benzene <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Butadiene (1,3-) <= 0.0001 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
18	Ethylbenzene <= 0.007 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
19	Formaldehyde <= 0.156 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Naphthalene <= 0.0003 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
21	Propylene oxide <= 0.006 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
22	Polycyclic organic matter <= 0.0005 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
24	The permittee shall notify the Department at least 24 hours prior to maintenance calibration adjustments for the combustion turbine. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit notification: Upon occurrence of event , at least 24 hours prior to maintenance calibration adjustments. Fax notification to: Central Regional Enforcement Office, Telefax Number: (609) 292-6450. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Hours of Operation <= 2 hours per occurrence; total number of occurrences not to exceed 5 separate occurrences per year (for gas and oil operation combined). During maintenance calibration adjustment periods, the permittee is not required to operate the water injection system to control NOx emissions unless load exceeds 30% of base load. [N.J.A.C. 7:27-22.16(e)]	Hours of Operation: Monitored by hour/time monitor continuously , and load meter, 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 continuously. Records shall show start time, end time, date, total period, and the name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
26	Maximum Gross Heat Input <= 220 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS10 Oil firing: maintenance calibration**

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, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Opacity <= 10 % Smoke emissions from stationary turbine engines no greater than 10% opacity, exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	Opacity: Monitored by visual determination at the approved frequency of every 100 hours of oil firing operation, independent of oil firing operating scenario. Visual determination made in accordance with NJ Test Method 2 (N.J.A.C. 7:27B-2). (See Applicable Requirement). 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. Installation and operation of a continuous opacity monitor on a given turbine is required if actual distillate oil operation exceeds 500 hours in a calendar year. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [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 of every 100 hours of oil firing operation. (See Applicable Requirement). The records should be kept in a permanent form suitable for inspection. [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 if continuous opacity monitors are installed. If actual distillate oil operation exceeds 500 hours, submit a monitoring protocol, pursuant to N.J.A.C.7:27-22.18(a), to the Emission Measurement Section (EMS), within 90 days of exceeding the 500 hour threshold. Installation and operation of the monitor is required within 180 days of exceeding the 500-hour threshold. Refer to N.J.A.C.7:27-22.18 and 19 for other applicable requirements. [N.J.A.C. 7:27-22.19(d)2]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions <= 22 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. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) per delivery. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results per delivery. Keep certificate of analysis showing fuel sulfur content, per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
6	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	SO2 <= 104 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	VOC (Total) <= 7 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	PM-10 (Total) <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	VOC (Total) <= 5 lb/hr. Maximum emission rate from preconstruction permit. [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
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]	None.	None.	None.
12	SO2 <= 0.24 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	TSP <= 20 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	TSP <= 0.048 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	PM-10 (Total) <= 20 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	Fuel limited to #2 fuel oil or #2 fuel oil blended with lighter distillate, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
17	The permittee shall notify the Department at least 24 hours prior to maintenance calibration adjustments for the combustion turbine. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit notification: Upon occurrence of event , at least 24 hours prior to maintenance calibration adjustments. Fax notification to: Central Regional Enforcement Office, Telefax Number: (609) 292-6450. [N.J.A.C. 7:27-22.16(o)]
18	Hours of Operation <= 2 hours per occurrence; total number of occurrences not to exceed 5 separate occurrences per year (for gas and oil operation combined). During maintenance calibration adjustment periods, the permittee is not required to operate the water injection system to control NOx emissions unless load exceeds 30% of base load. [N.J.A.C. 7:27-22.16(e)]	Hours of Operation: Monitored by hour/time monitor continuously , and load meter, 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 continuously. Records shall show start time, end time, date, total period, and the name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	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. "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]	None.	None.	None.
20	Maximum Gross Heat Input <= 220 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [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	Arsenic compounds <= 0.002 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.1E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Benzene <= 0.012 lb/hr. Emission limit based on AP-42 emission factor (Oil: 5.5E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Beryllium compounds <= 0.0001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.1E-07 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	Butadiene (1,3-) <= 0.004 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.6E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
25	Cadmium Emissions <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.8E-06) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Formaldehyde <= 0.062 lb/hr. Emission limit based on AP-42 emission factor (Oil: 2.8E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Lead compounds <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (Oil: 1.4E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
28	Manganese compounds <= 0.174 lb/hr. Emission limit based on AP-42 emission factor (Oil: 7.9E-04 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
29	Naphthalene <= 0.008 lb/hr. Emission limit based on AP-42 emission factor (Oil: 3.5E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
30	Nickel compounds <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.6E-06 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
31	Polycyclic organic matter <= 0.009 lb/hr. Emission limit based on AP-42 emission factor (Oil: 4.0E-05 lb/MMBtu) and the maximum heat input (220 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)**
Operating Scenario: **OS11 Gas firing: low load (30 MW)**

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, except for a period of not longer 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 condensed water vapor shall not exceed 10% opacity except for a period not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 43 lb/hr. Particulate emission limit from the combustion of fuel based on rated maximum heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	CO <= 250 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
5	SO2 <= 0.0002 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	VOC (Total) <= 3 ppmvd @ 15% O2. Maximum concentration from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [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	VOC (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test) (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See Stack Testing Summary Reference in OSO). [N.J.A.C. 7:27-22.16(o)]
8	SO2 <= 0.1 lb/hr. Maximum emission rate from preconstruction permit. Based on 0.0002 lb/MMBtu emission rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	PM-10 (Total) <= 2 lb/hr. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	TSP <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP <= 2 lb/hr. Maximum emission rate from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	PM-10 (Total) <= 0.004 lb/MMBTU. Maximum emission rate from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	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 stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-19.15(a)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]
14	Acetaldehyde <= 0.017 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.0E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
15	Acrolein <= 0.003 lb/hr. Emission limit based on AP-42 emission factor (NG: 6.4E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/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
16	Benzene <= 0.005 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.2E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Butadiene (1,3-) <= 0.0002 lb/hr. Emission limit based on AP-42 emission factor (NG: 4.3E-07 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
18	Ethylbenzene <= 0.014 lb/hr. Emission limit based on AP-42 emission factor (NG: 3.2E-05 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
19	Formaldehyde <= 0.305 lb/hr. Emission limit based on AP-42 emission factor (NG: 7.1E-04 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Naphthalene <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 1.3E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
21	Polycyclic organic matter <= 0.001 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.2E-06 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Propylene oxide <= 0.012 lb/hr. Emission limit based on AP-42 emission factor (NG: 2.9E-07 lb/MMBtu) and the maximum heat input (430 MMBtu/hr). [N.J.A.C. 7:27-22(a)]	None.	None.	None.
23	Fuel limited to natural gas, based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.

U1303 Combustion Turbine #2 - simple cycle turbine (46 MW)
OS11

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
24	Hours of Operation <= 570 hr/yr. Maximum time limitation for low load operation (30 MW output). [N.J.A.C. 7:27-22.16(e)]	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 (permanently bound). Records shall be kept of each period of low load operation, showing start time, end time, date, reason for low load operation, and the name of the operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
25	Low load is defined as the minimum load at which the turbine can comply with all permitted emission limits (30 MW output). Low load operation is allowed for Equipment maintenance. [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. Records shall be kept of each period of low load operation, showing start time, end time, date, reason for low load operation, and the name of the operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
26	Maximum Gross Heat Input <= 430 MMBTU/hr (HHV). Design heat input rate for 20 deg. F ambient temperature. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U1304 CT#1 Starter Diesel Engine, U1305 CT#2 Starter Diesel Engine**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The Permittee shall conduct a stack test no later then every five years (See General Provisions) from the last stack test. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above. [N.J.A.C. 7:27-22.16(a)]	Monitored by stack emission testing every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 380-01A, PO Box 420, Trenton, NJ 08625 no later then 12 months prior the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: http://www.epa.gov/ttnchie1/ert. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-530-4041 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	No person shall cause, suffer, allow or permit smoke the shade or appearance of which is darker than number 1 on the Ringelmann smoke chart or greater than 20 percent opacity, exclusive of visible condensed water vapor, to be emitted into the outdoor air from the combustion of fuel in any stationary internal combustion engine or any stationary turbine engine for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
3	Particulate Emissions <= 2.83 lb/hr per engine based on the engine rated heat input of 4.72 MMBTU/hr. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Sulfur Content in Fuel <= 15 ppmw. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1 (including Ocean County). [N.J.A.C. 7:27-9.2(b)]	Other: Monitored by fuel sulfur content on invoices/bills of lading for each delivery.[N.J.A.C. 7:27- 9.2(b)].	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-9.2(b)]	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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 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	CO <= 500 ppmvd @ 15% O2. Limitation for a stationary reciprocating engine that is subject to the provisions of N.J.A.C. 7:27-19 (except emergency generators). [N.J.A.C. 7:27-16.10(b)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test) in compliance with N.J.A.C. 7:27-16.22(g). Compliance with the limit will be based upon the hourly average CO emission rate determined from three emission test runs. Each test run shall be conducted during the normal startup of the associated combustion turbine. The test run will start when the starter diesel engine (U1304 or U1305) is started and end when the engine is shut down. The hourly average CO emission rate for each hour of the test will be determined by multiplying the average CO emission rate measured by the number of test minutes in the hour and dividing by 60 minutes. Conduct CO testing concurrently with any NOx testing required pursuant to N.J.A.C. 7:27-19. [N.J.A.C. 7:27-16.23(a)2]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-16.22]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-16.22]
7	The diesel starter engine shall not run more than 32 minutes during any one hour to comply with the average CO emission rate over one hour. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously. [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. Records shall be kept of each operating period, showing start time, end time, date, and the name of the operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	For a stationary reciprocating engine that has a maximum rated power output of at least 500 brake horsepower or greater, adjust the combustion process, according to N.J.A.C. 7:27-19.16(g) and the manufacturer's recommended maintenance schedules. [N.J.A.C. 7:27-16.10(e)2]	Other: The owner or operator of a stationary combustion turbine or reciprocating engine shall ensure that the adjustment of the combustion process is carried out according to the manufacturer's recommended procedures and maintenance schedule.[N.J.A.C. 7:27-19.16(g)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall ensure that each adjustment is recorded in a log book or computer data system and retained for a minimum of five years, to be made readily accessible to the Department upon request. Such record shall contain the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentrations of NOx, CO and O2, measured before and after the adjustment was made; and 5. The type and amount of fuel use over the 12 months prior to the adjustment. [N.J.A.C. 7:27-19.16(h)]	None.
9	Nitrogen oxides (NOx): Compliance with the NOx limit will be demonstrated as specified in the NJDEP-approved NOx Averaging Plan in accordance with N.J.A.C.7:27-19.6. (See Appendix II for the detailed NOx Averaging Plan). [N.J.A.C. 7:27-19.8(c)]	Nitrogen oxides (NOx): Monitored by hour/time monitor at the approved frequency. NOx emissions will be calculated based on the operating hours and the unit ratings as specified in the approved NOx Averaging and Alternative Monitoring Plan. [N.J.A.C. 7:27-22.16(o)]	Nitrogen oxides (NOx): Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency in accordance with the NOx averaging Plan for the designated set of emission units (GR1). Records shall be kept of each period of operation or testing showing the engine start time, stop time, date, reason for operation and the name of the operator making the entry. [N.J.A.C. 7:27-19.6(g)]	Submit a report: As per the approved schedule as specified for the designated emission units in the NOx Averaging Plan (GR1). [N.J.A.C. 7:27-19.6(h)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	Diesel Usage <= 3,371 gal/yr per engine. [N.J.A.C. 7:27-22.16(a)]	Diesel Usage: Monitored by fuel flow/firing rate instrument daily, based on a 12 calendar month period. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The owner or operator shall install a fuel flow meter within 90 days of the approval of this permit BOP100001. [N.J.A.C. 7:27-22.16(o)]	Diesel Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
11	Hours of Operation While Firing Diesel <= 100 hr/yr per engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation While Firing Diesel: Monitored by hour/time monitor daily, based on a 12 calendar month period. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Diesel: Recordkeeping by manual logging of parameter or storing data in a computer data system once per calendar day during operation. [N.J.A.C. 7:27-22.16(o)]	None.
12	VOC (Total) <= 0.037 tons/yr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	NOx (Total) <= 1.06 tons/yr per engine. This limit is based on NOx averaging plan. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	CO <= 0.28 tons/yr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	TSP <= 0.022 tons/yr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	SO2 <= 0.075 tons/yr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	PM-10 (Total) <= 0.0135 tons/yr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Nitrogen oxides (NOx) <= 4.44 lb/MMBTU. This emission limit is a NOx averaging plan limit. This limit is in effect at all times, including startup, shutdown and maintenance periods. [N.J.A.C. 7:27-19.6(d)1]	Nitrogen oxides (NOx): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)]	Nitrogen oxides (NOx): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [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
19	Maximum Gross Heat Input <= 4.72 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	CO <= 5.6 lb/hr per engine from modification application. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs in compliance with N.J.A.C. 7:27-16.22. Conduct CO testing concurrently with any NOx testing required pursuant to N.J.A.C. 7:27-19. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(o)]
21	VOC (Total) <= 0.73 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	NOx (Total) <= 21.24 lb/hr per engine. This emission limit is a NOx averaging plan limit. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(o)]
23	TSP <= 0.43 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	An owner or operator of an existing stationary 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.
25	PM-10 (Total) <= 0.27 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	SO2 <= 1.5 lb/hr per engine. [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
27	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.
28	The owner or operator of a 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 has an option of utilizing an oil analysis program, at the same frequency specified for changing the oil, in order to extend the specified oil change requirement, per 40 CFR 63.6625(j). 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.
29	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.
30	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 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. The owner or operator is not required to comply with notification requirements in Table 8 as specified in 40 CFR 63.6645(a)(5). [40 CFR 63.6665]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	The owner or operator of a 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.
32	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

Emission Unit: **U1701 Storage tank for #2 FO (1 MMgal)**
Operating Scenario: **OS1 #2 FO Storage**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw. Maximum allowable sulfur content in No. 2 (or lighter) fuel oil for geographical Zone 1. [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.
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 the fuel was stored in New Jersey may be stored, offered for sale, sold, delivered or exchanged in trade, for use in New Jersey, after the effective date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(a)]	None.	None.	None.
3	Tank content limited to #2 Fuel Oil or distillate fuel oil. [N.J.A.C. 7:27-22.16(e)]	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing materials delivered. [N.J.A.C. 7:27-22.16(o)]	None.
4	No. 2 Fuel Oil Usage <= 7.2 MMgal/yr. Permittee's annual throughput limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	No. 2 Fuel Oil Usage: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	No. 2 Fuel Oil Usage: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing amount of fuel delivered. [N.J.A.C. 7:27-22.16(o)]	None.
5	Emissions of all other air contaminant, not listed in this compliance plan, shall be below their reporting thresholds for contaminants listed at Table in N.J.A.C. 7:27-17.9. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	The vapor pressure of the liquid, excluding the vapor pressure of water, shall be monitored and recorded at the liquid's actual temperature or at 70 degrees F, whichever is higher. [N.J.A.C. 7:27-22.1]	Other: Monitor the vapor pressure of the tank content by certified lab fuel sampling analysis or MSDS sheet per delivery.[N.J.A.C. 7:27-22.16(o)].	Other: Keep the record of the vapor pressure of the tank content.[N.J.A.C. 7:27-22.16(o)].	None.

FORKED RIVER POWER LLC (78912)
BOP200002

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Forked River Power, LLC

Facility ID (AIMS): 78912

Street Address: FORKED RIVER POWER LLC
789 SOUTH MAIN ST
FORKED RIVER, NJ 08731

Mailing Address: FORKED RIVER POWER LLC
789 SOUTH MAIN ST
FORKED RIVER, NJ 08731

State Plane Coordinates:

X-Coordinate:

Y-Coordinate:

Units:

Datum:

Source Org.:

Source Type:

County: Ocean

Location Description: Lacey/Ocean township line

Industry:

Primary SIC: 4911

Secondary SIC:

NAICS: 221112

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address:
Forked River Power, LLC
789 South Main Street
Forked River, NJ 08731

Contact Type: BOP - Operating Permits

Organization: NJ DEP
Org. Type: State
Name: Shafi Ahmed
NJ EIN:
Title: Environmental Engineer 3
Phone: (609) 633-2971 x
Fax: (609) 292-1028 x
Other: ( ) - x
Type:
Email: shafi.ahmed@dep.state.nj.us

Mailing Address:
Department of Environmental Protection
Bureau of Air Permits
PO Box 420
Trenton, NJ 08625-0420

Contact Type: Delegated Authority

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address:
Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Emission Statements

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address: Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

Contact Type: Environmental Officer

Organization: Hull Street Energy
Org. Type: LLC
Name: Nicholas Wright
NJ EIN:
Title: VP, Asset Management
Phone: ( ) - x
Fax: ( ) - x
Other: (240) 477-2439 x
Type: Mobile
Email: nwright@hullstreetenergy.com

Mailing Address: Forked River Power LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

Contact Type: Fees/Billing Contact

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address: Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: General Contact

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address: Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

Contact Type: On-Site Manager

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: ( ) - x
Type:
Email: glenroy.leslie@mphrockaway.com

Mailing Address: Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

Contact Type: Operator

Organization: Forked River Power
Org. Type: LLC
Name: Glenroy Leslie
NJ EIN:
Title: Plant Manager
Phone: (609) 693-8993 x
Fax: (609) 693-8997 x
Other: (508) 769-9764 x
Type: Mobile
Email: glenroy.leslie@mphrockaway.com

Mailing Address: Forked River Power, LLC
789 South Main Street
P.O. Box 1191
Forked River, NJ 08731

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Owner (Current Primary)

Organization: Hull Street Energy
Org. Type: LLC
Name: Nicholas Wright
NJ EIN:
Title: VP, Asset Management
Phone: ( ) - x
Fax: ( ) - x
Other: (240) 477-2439 x
Type: Mobile
Email: nwright@hullstreetenergy.com

Mailing Address:
Forked River Power LLC
4920 Elm Street
Suite 205
Bethesda, MD 20814

Contact Type: Responsible Official

Organization: Hull Street Energy
Org. Type: LLC
Name: Nicholas Wright
NJ EIN:
Title: VP, Asset Management
Phone: ( ) - x
Fax: ( ) - x
Other: (240) 477-2439 x
Type: Mobile
Email: nwright@hullstreetenergy.com

Mailing Address:
Forked River Power LLC
4920 Elm Street
Suite 205
Bethesda, MD 20814

FORKED RIVER POWER LLC (78912) Date: 12/07/2022
BOP200002

New Jersey Department of Environmental Protection
Non-Source Fugitive Emissions

FG NJID	Description of Activity Causing Emission	Location Description	Reasonable Estimate of Emissions (tpy)								
			VOC (Total)	NOx	CO	SO	TSP (Total)	PM-10	Pb	HAPS (Total)	Other (Total)
FG1	Flanges		0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	
FG2	Valves		0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	
FG3	Pumps		0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	
FG4	Paints, Solvents, Cleaners		0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	
Total			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000

FORKED RIVER POWER LLC (78912) Date: 12/7/2022

BOP200002

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1	FR Fuel Oil	1MMgal distillate fuel oil tank	Storage Vessel	090479 PCP960001		No		
E2	GEFrame6CT1	dual fuel, simple cycle (550 MMBTU/hr)	Combustion Turbine	123497 PCP960002		No	7/15/1997	
E3	GEFrame6CT2	dual fuel, simple cycle (550 MMBTU/hr)	Combustion Turbine	123498 PCP960003		No	7/15/1997	
E4	#1StarterDsl	CT#1 Starter Diesel Engine	Stationary Reciprocating Engine		6/1/1989	No		
E5	#2StarterDsl	CT#2 Starter Diesel Engine	Stationary Reciprocating Engine		6/1/1989	No		

78912 FORKED RIVER POWER LLC BOP200002 E1 (Storage Vessel)
Print Date: 10/27/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	1,000,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	White
Description (if other):	
Shell Condition:	Light Rust
Paint Condition:	
Shell Construction:	
Is the Shell Insulated?	
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	48.00
Length (ft):	
Width (ft):	
Diameter (ft):	60.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	250.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Internal floating roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	
Roof Construction:	
Primary Seal Type:	Liquid Mounted Resilient
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No
Does the storage vessel	

78912 FORKED RIVER POWER LLC BOP200002 E1 (Storage Vessel)
Print Date: 10/27/2022

Does the storage vessel have a Conservation Vent?	
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

78912 FORKED RIVER POWER LLC BOP200002 E2 (Combustion Turbine)
Print Date: 10/27/2022

Make:	
Manufacturer:	General Electric
Model:	PG6541(B)
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	590.00
Type of Turbine:	Industrial
Type of Cycle:	Simple-Cycle — Description:
Industrial Application:	Electrical Generator — Description:
Power Output:	46.00 — 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: Dual fuel (natural gas and distillate oil)

78912 FORKED RIVER POWER LLC BOP200002 E3 (Combustion Turbine)
Print Date: 10/27/2022

Make:	
Manufacturer:	General Electric
Model:	PG6541(B)
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	590.00
Type of Turbine:	Industrial
Type of Cycle:	Simple-Cycle — Description:
Industrial Application:	Electrical Generator — Description:
Power Output:	46.00 — 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: Dual fuel (natural gas and distillate oil)

78912 FORKED RIVER POWER LLC BOP200002 E4 (Stationary Reciprocating Engine)
Print Date: 10/27/2022

Make:	Detroit Diesel
Manufacturer:	
Model:	7123-7300
Maximum Rated Gross Heat Input (MMBtu/hr):	4.72
Class:	Lean Burn
Description:	
Duty:	Other
Description:	Intermittent operation
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	2-stroke
Power Output (BHP):	620
Electric Output(KW):	0
Compression Ratio:	17
Ignition Type:	Compression
Description:	
Engine Speed (RPM):	2300
Engine Exhaust Temperature (°F):	670
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	7611
Output Type:	
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	(●) Yes ( ) No
Is the Engine Using an Aftercooler?	( ) Yes (●) No

Is the Engine Using (check all that apply):

A Prestratified Charge (PSC)	☐	A NOx Converter	☐
Air to Fuel Adjustment (AF)	☐	Ignition Timing Retard	☐
Low Emission Combustion	☐	Non-Selective Catalytic Retard (NSCR)	☐
Other	☐		

Description:

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: The CT Starter Diesel engine mechanically drives the associated Combustion Turbine (CT) Generator via a clutch and gearing. The engine operates for short periods (< 30 min.) during the early stages of the CT startup. The diesel may also be operated for maintenance and testing or for offline cleaning of the CT compressor.

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

78912 FORKED RIVER POWER LLC BOP200002 E5 (Stationary Reciprocating Engine)
Print Date: 10/27/2022

Make:	Detroit Diesel
Manufacturer:	
Model:	7123-7300
Maximum Rated Gross Heat Input (MMBtu/hr):	4.72
Class:	Lean Burn
Description:	
Duty:	Other
Description:	Intermittent operation
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	2-stroke
Power Output (BHP):	620
Electric Output(KW):	0
Compression Ratio:	17
Ignition Type:	Compression
Description:	
Engine Speed (RPM):	2300
Engine Exhaust Temperature (°F):	670
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	7611
Output Type:	
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	(●) Yes ( ) No
Is the Engine Using an Aftercooler?	( ) Yes (●) No

Is the Engine Using (check all that apply):

A Prestratified Charge (PSC)	☐	A NOx Converter	☐
Air to Fuel Adjustment (AF)	☐	Ignition Timing Retard	☐
Low Emission Combustion	☐	Non-Selective Catalytic Retard (NSCR)	☐
Other	☐		

Description:

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: The CT Starter Diesel engine mechanically drives the associated Combustion Turbine (CT) Generator via a clutch and gearing. The engine operates for short periods (< 30 min.) during the early stages of the CT startup. The diesel may also be operated for maintenance and testing or for offline cleaning of the CT compressor.

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

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT1	FR Fuel Oil	Tank (2FO)				120								
PT2	GE Frame6 CT	CT1	Rectangle	154	60	135	1,005.0	970.0	1,100.0	798,970.0	622,940.0	1,050,000.0	Up	
PT3	GE Frame6 CT	CT2	Rectangle	154	60	178	1,005.0	970.0	1,040.0	798,970.0	622,940.0	975,000.0	Up	
PT4	DSL1	CT1 Starter Diesel Exhaust	Round	12	15	108			670.0			5,280.0	Horizontal	
PT5	DSL2	CT2 Starter Diesel Exhaust	Round	12	15	108			670.0			5,280.0	Horizontal	

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

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

U 1302 GEFrame6 CT1 Combustion Turbine #1 - simple cycle turbine (46 MW)

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 firing: base load	Normal - Steady State	E2		PT2								
OS2		Oil firing: base load	Normal - Steady State	E2		PT2								
OS3		Gas firing: peak load	Normal - Steady State	E2		PT2								
OS5		Gas firing: startup	Startup	E2		PT2								
OS6		Oil firing: startup	Startup	E2		PT2								
OS7		Gas firing: shutdown	Shutdown	E2		PT2								
OS8		Oil firing: shutdown	Shutdown	E2		PT2								
OS9		Gas firing: maintenance calibration	Maintenance	E2		PT2								
OS10		Oil firing: maintenance calibration	Maintenance	E2		PT2								
OS11		Gas firing: low load (30 MW)	Normal - Steady State	E2		PT2								

U 1303 GEFrame6 CT2 Combustion Turbine #2 - simple cycle turbine (46 MW)

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 firing: base load	Normal - Steady State	E3		PT3								

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

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

U 1303 GEFrame6 CT2 Combustion Turbine #2 - simple cycle turbine (46 MW)

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.
OS2		Oil firing: base load	Normal - Steady State	E3		PT3								
OS5		Gas firing: startup	Startup	E3		PT3								
OS6		Oil firing: startup	Startup	E3		PT3								
OS7		Gas firing: shutdown	Shutdown	E3		PT3								
OS8		Oil firing: shutdown	Shutdown	E3		PT3								
OS9		Gas firing: maintenance calibration	Maintenance	E3		PT3								
OS10		Oil firing: maintenance calibration	Maintenance	E3		PT3								
OS11		Gas firing: low load (30 MW)	Normal - Steady State	E3		PT3								

U 1304 #1StarterDsl CT#1 Starter Diesel Engine

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	Diesel Start	CT1 Diesel Starter Operation	Normal - Steady State	E4		PT4	2-02-001-02		100.0			5,280.0		670.0

FORKED RIVER POWER LLC (78912)
BOP200002

Date: 12/7/2022

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

U 1305 #2StarterDsl CT#2 Starter Diesel Engine

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	Diesel Start	CT2 Diesel Starter Operation	Normal - Steady State	E5		PT5	2-02-001-02		100.0			5,280.0		670.0

U 1701 FR Fuel Oil Storage tank for #2 FO (1 MMgal)

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	FR Fuel Oil	#2 FO Storage	Normal - Steady State	E1		PT1								

Date: 12/7/2022

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR1 NOx Average

Members:

Type	ID	OS	Step
U	U 1302	OS0 Summary	
U	U 1303	OS0 Summary	
U	U 1304	OS0 Summary	
U	U 1305	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Other

Other (explain): Emissions averaging in accordance with N.J.A.C. 22a-174-19.6.

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

Operating Circumstances:

Date: 12/7/2022

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR2 CO2 Budget

Members:

Type	ID	OS	Step
U	U 1302	OS0 Summary	
U	U 1303	OS0 Summary	

Formal Reason(s) for Group/Cap:

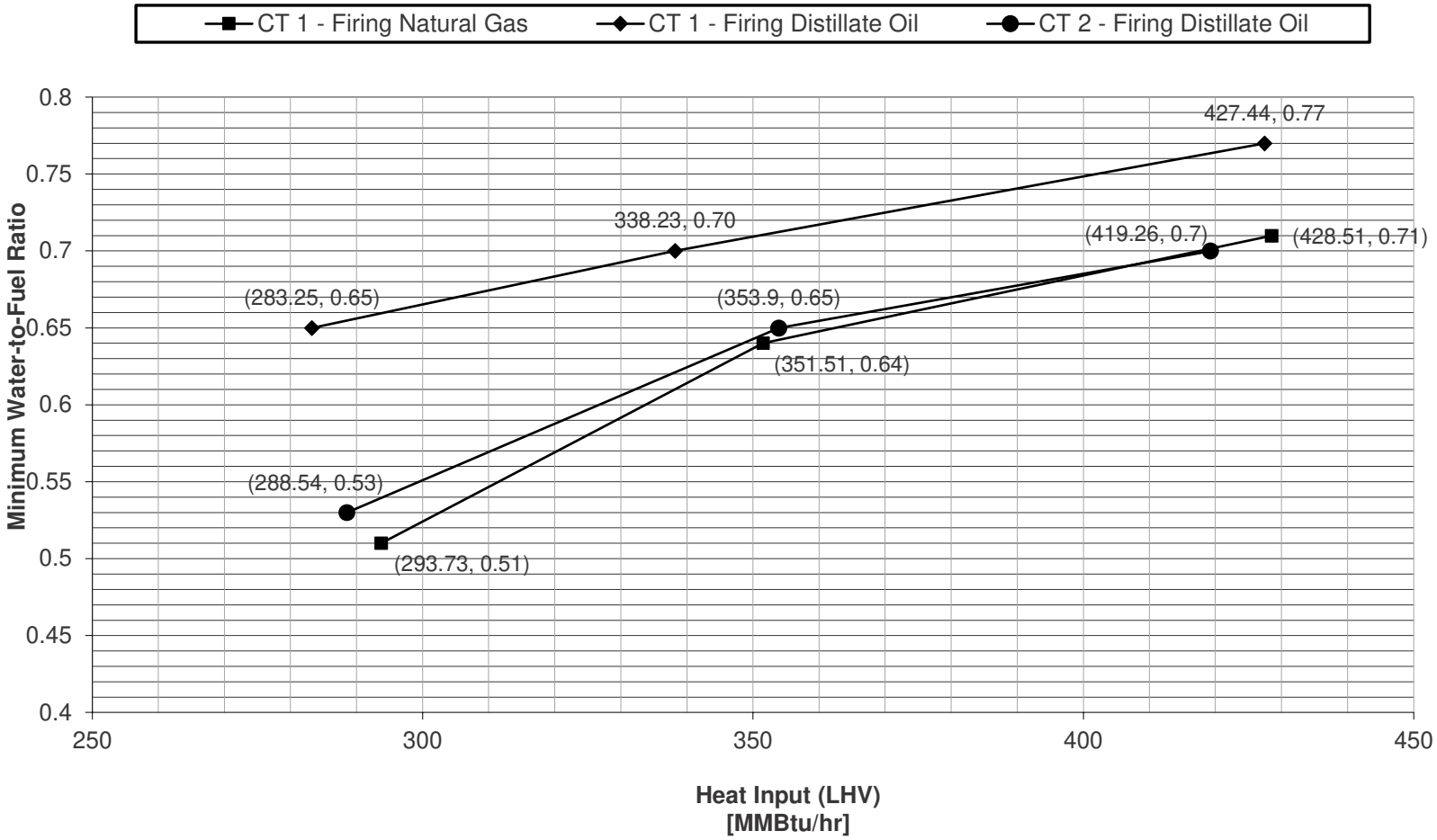
☑ Other

Other (explain): Specify requirements for Emission Units subject to the CO2 Budget Trading Program (N.J.A.C. 7:27C)

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

Operating Circumstances:

Appendix I
Forked River Generating Station
Minimum Water-To-Fuel Ratio



FORKED RIVER POWER, LLC

PROGRAM INTEREST NUMBER 78912

NOx AVERAGING PLAN

AND

ALTERNATIVE MONITORING PLAN

Revised June 25, 2020

Submitted to:
New Jersey Department of Environmental Protection

INTRODUCTION

A. Application Overview

The Forked River Power facility consists of two, simple-cycle GE Frame 6 combustion turbine generators, each of which is equipped with a Detroit Diesel starter diesel engine. The combustion turbine generators produce electrical power for sale and each unit is limited to 887,775 MMBTU total heat input per year (less than 2,000 hours of operation per year). The starter diesel engines each operate 100 hours per year or less during startup of the combustion turbines (< 30 minutes each event) or for maintenance or testing.

The combustion turbine generators (Emission Units U1302 & U1303) are high energy demand day (HEDD) units subject to the 2015 HEDD Unit NOx emission limits in N.J.A.C. 7:27-19.5(g). A Dry Low NOx (DLN) combustion system was installed in Combustion Turbine #1 (U1302) in April – May 2015 to meet these limits. (A DLN combustion system had been previously installed in Combustion Turbine #2 (U1303) in 1994.) Subsequent emissions testing demonstrated that the actual emissions from U1302 and U1303 during base, peak (U1302 only) and low load operations on natural gas fuel (Operating Scenarios OS1, OS3 and OS11), and for base load operations on distillate fuel oil (Operating Scenario OS2) are less than the applicable 2015 HEDD Unit NOx emission limits.

The starter diesel engines (Emission Units U1304 & U1305) are stationary reciprocating engines subject to the 8 grams/BHP-hr NOx emission limit in N.J.A.C. 7:27-19.8(c). Based on the results of stack emissions testing, NOx emissions from the starter diesel engines exceed this limit. Consequently, in accordance with NJAC 7:27-19.3(f)(1) and 19.6, Forked River Power complies with the NJDEP-approved NOx Emissions Averaging Plan for the designated set of emission units consisting of the two combustion turbines and the two starter diesel engines. The most recent NOx emissions test results for these four units are included in Tables 4 & 5 of this Plan.

Part I of this application includes the information required by NJAC 7:27-19.6(b) and 19.14(c) for approval of a NOx Averaging Plan. Forked River Power is also requesting approval for use of an Alternative Monitoring System in accordance with NJAC 7:27-19.18(b). Part II of this application contains the information required by NJAC 7:27-19.18(c) and 19.14(c) for approval of an Alternative Monitoring System.

B. Facility Information [N.J.A.C. 7:27-19.14(c)]

Facility Owner: Forked River Power, LLC
4920 Elm Street, Suite 205
Bethesda, MD 20814
Phone: (240) 477-2439

Facility Operator: Forked River Power, LLC
789 South Main Street
Forked River, NJ 08731
Phone: (609) 693-8993

Facility Street Address: Forked River Power, LLC
789 South Main Street
Forked River, NJ 08731

Subject Equipment:

Unit	Equipment Type	Make	Model	Serial Number
1302	Simple-cycle Combustion Turbine	General Electric	PG6541(B)	295428
1303	Simple-cycle Combustion Turbine	General Electric	PG6541(B)	295445
1304	Starter Diesel Engine	Detroit Diesel	7123-7300	12VA082791
1305	Starter Diesel Engine	Detroit Diesel	7123-7300	12FVA001148

PART I – NOX AVERAGING PLAN

A. Identification of Averaging Units [NJAC 7:27-19.6(b), Items 1 – 3 & 5]

The averaging units included in this Plan are listed in Table 1 along with the type(s) of fuel combusted, maximum gross heat input rate and peak daily heat input for each unit. Each Combustion Turbine (Emission Unit U1302 & U1303) is permitted for several different Operating Scenarios (OS). The Peak Load, natural gas-fired Operating Scenario (OS 3) for U1302 has the highest maximum heat input rate, while the Base Load Operating Scenarios (OS1 & OS2) for both U1302 & U1303 are the most frequently used. These Operating Scenarios are therefore included in Table 1.

The Maximum Gross Heat Input Rates for the combustion turbines listed in Table 1 are the hourly Maximum Gross Heat Input for the Base Load and Peak Load Operating Scenarios from the facility's current Title V Operating Permit (Permit Activity No BOP200001). The Maximum Gross Heat Input Rate for the starter diesel engines is based on the manufacturer's specified fuel consumption of 33.7 gallons/hour at rated speed (2300 RPM) and rated load (620 BHP) and an assumed fuel heating value of 140,000 BTU/gallon, hhv.

The peak daily heat input for the Gas Turbines is based on 24 hours of operation at 550 MMBTU/hr (the Maximum Gross Heat Input for base load operations). The peak daily heat input for the starter diesels is based on 6 hours per day of operation, which would be the equivalent of more than 12 starts of the gas turbine.

B. Proposed Maximum Allowable NOx Emission Rates [NJAC 7:27-19.6(b), Item 4]

The proposed maximum allowable NOx emission rates for the averaging units are listed in Table 2 along with the applicable NOx emission limits from NJAC 7:27-19.5 and 19.8. The proposed maximum allowable NOx emission rate for each operating scenario of the combustion turbines is less than or equal to the applicable NOx lb/MMBTU emission limit from the Title V Operating Permit or the applicable 2015 HEDD Unit NOx limit (expressed as a NOx lb/MMBTU equivalent), whichever is more restrictive. Compliance with these limits was most recently demonstrated during stack emissions testing in October and November 2019.

C. Demonstration of Compliance with Peak Allowable Emissions [NJAC 7:27-19.6(b), Item 6]

NJAC 7:27-19.6(b)(6) requires a demonstration that, in operating at the peak daily heat input rate, the NOx averaging units will satisfy the following equation:

$$TPEE \leq TPAE$$

where:

TPEE = Total Peak Estimated Emissions
= the sum of the Proposed Maximum Allowable NOx Emission Rate (from Table 2) times the Peak Daily Heat Input (from Table 1) for all units in the averaging plan

TPAE = Total Peak Allowable Emissions
= the sum of the applicable NOx emission limit (from Table 2) times the Peak Daily Heat Input (from Table 1) for all units in the averaging plan

Table 3 shows the calculated TPEE and TPAE values for base load and peak load operations of the combustion turbines on natural gas and base load operation on No. 2 fuel oil. The calculated TPEE is less than the TPAE for these operating modes.

D. Method of Determining Actual NOx Emission Rates [NJAC 7:27-19.6(b), Item 7]

The actual NOx emission rates (in lb/MMBTU) for the emission units in this Averaging Plan will be determined in accordance with the proposed Alternative Monitoring Plan included in Part II of this application.

In accordance with N.J.A.C. 7:27-19.6(d) the Forked River Power facility will demonstrate that:

1. The actual emission rate (in lb/MMBTU) for each unit, averaged over the applicable time period in N.J.A.C. 7:27-19.6(f), does not exceed the maximum allowable emissions rates in Table 2, and

2. The sum of the actual emissions (in lbs) from all of the averaging units does not exceed the sum of the allowable emissions for each unit over the applicable time period in N.J.A.C. 7:27-19.6(f).

The actual NOx emissions (in lbs) for each unit will be determined by multiplying the actual NOx emission rate (in lb/MMBTU) times the actual heat input (in MMBTU) for the time period of concern. The allowable NOx emissions (in lbs) for each unit for the same period will be determined by multiplying the applicable NOx Emission Limit from N.J.A.C. 7:27-19.5 & 19.8 (see Table 2) times the actual heat input.

Forked River Power will calculate and record the actual and allowable emissions and emission rates for each emission unit and the designated set in accordance with N.J.A.C. 7:27-19.6(f) & (g) and will submit quarterly reports in accordance with N.J.A.C. 7:27-19.6(h). Reports of non-compliance or the unforeseen inability to operate an averaging unit will be submitted in accordance with N.J.A.C. 7:27-19.6(i) & (j).

E. Person Responsible for Recordkeeping [NJAC 7:27-19.6(b), Item 7]

The Forked River Power facility Plant Manager will be responsible for the recordkeeping required by NJAC 7:27-19.6(g). Currently this is:

Name: Glenroy Leslie
Phone: (347)-379-4569

Table 1: NOx Averaging Units and Rated Heat Input

Emission Units	Description	Permit ID	Fuel Type(s)	Operating Scenario(s)	Maximum Gross Heat Input Rate MMBTU/hr [Note (1)]	Peak Daily Heat Input MMBTU [Note (2)]
U1302 & U1303	CT #1 & 2 GE Frame 6 Simple-cycle Gas Turbines	BOP 200001	Natural Gas or #2 Fuel Oil	Base Load (OS 1 & 2)	550	13,200
			Natural Gas or #2 Fuel Oil	Peak Load (OS 3 – U1302 Only)	590	14,160
U1304 & U1305	Detroit Diesel Starter Engine #1 & #2	BOP 200001	#2 Fuel Oil	All (OS Summary)	4.72	28.32

Notes to Table 1:

(1) The Maximum Gross Heat Input Rates for the combustion turbines and starter diesel engines are the hourly Maximum Gross Heat Input values for the listed Operating Scenarios from the current Title V Operating Permit (Permit Activity No BOP200001).

(2) The peak daily heat input for the Gas Turbines is based on 24 hours of operation at the Maximum Gross Heat Input. The peak daily heat input for the starter diesel engines is based on 6 hours per day of operation, which would be the equivalent of more than 12 starts of the gas turbine.

Table 2: Proposed Maximum Allowable NOx Emission Rates

Emission Unit	Description	Fuel Type(s)	Operating Scenario(s)	Proposed Maximum Allowable NOx Emission Rate	NOx Emission Limit
U1302	CT #1 - GE Frame 6 Simple-cycle Gas Turbine	Natural Gas	Base Load (OS1)	0.05 lb/MMBTU	1.0 lb/MWh 0.066 lb/MMBTU) [Notes (1) & (2)]
			Peak Load (OS3)	0.06 lb/MMBTU	
			Startup, Shutdown, Maintenance & Low Load[a] (OS5, OS7, OS9 & OS11)	0.066 lb/MMBTU	
		#2 Fuel Oil	Base Load (OS2)	0.099 lb/MMBTU	1.6 lb/MWh (0.103 lb/MMBTU) [Notes (1) & (2)]
			Startup, Shutdown & Maintenance[a] (OS6, OS8 & OS10)	0.103 lb/MMBTU	
U1303	CT #2 - GE Frame 6 Simple-cycle Gas Turbine	Natural Gas	Base Load (OS1)	0.05 lb/MMBTU	1.0 lb/MWh (0.065 lb/MMBTU) [Notes (1) & (2)]
			Startup, Shutdown, Maintenance & Low Load[a] (OS5, OS7, OS9 & OS11)	0.065 lb/MMBTU	
		#2 Fuel Oil	Base Load (OS2)	0.099 lb/MMBTU	1.6 lb/MWh (0.100 lb/MMBTU) [Notes (1) & (2)]
			Startup, Shutdown, Maintenance & Low Load[a] (OS6, OS8, OS10 & OS12)	0.100 lb/MMBTU	
U1304	Detroit Diesel Starter Engine #1	#2 Fuel Oil	n/a	4.44 lb/MMBTU [Note (3)]	8 grams/bhp-hr (2.3 lb/MMBTU) [Note (4)]
U1305	Detroit Diesel Starter Engine #2				

Notes to Table 2:

(1) NOx emission limits for simple-cycle HEDD unit combustion turbines after 5/1/2015 from NJAC 7:27-19.5(g); per the facility Operating Permit, this limit applies during all periods in which net useful energy is being produced by the turbine.

(2) The NOx lb/MMBTU equivalents for the lb/MWh emission limits were determined based on the ratio of the NOx lb/MMBTU and NOx lb/MWh measured during the most recent base load stack emissions testing:

CT #1 (U1302) October 2019 Emission Tests	Base Load Natural gas (OS1)	Base Load Fuel Oil (OS2)
Actual Average NOx lb/MMBTU	0.018	0.098
Actual Average NOx lb/MWh	0.278	1.51

[a] Low load operation of each CT (OS11 & OS12 combined) is limited to 570 hours/year. Maintenance operations of each CT (OS9 & OS10 combined) are limited to 2 hours per occurrence and 5 times per year.

2015 HEDD Unit NOx lb/MWh limit	1.0	1.6

⇨ CT #1 2015 HEDD Unit NOx emission limit lb/MMBTU equivalent
= (1.0 lb/MWh) x (0.018 lb/MMBTU)/(0.278 lb/MWh) = **0.066 lb/MMBTU (gas)**
= (1.6 lb/MWh) x (0.098 lb/MMBTU)/(1.51 lb/MWh) = **0.103 lb/MMBTU (oil)**

CT #2 (U1303) Oct/Nov 2019 Emission Test	Base Load Natural gas (OS1)	Base Load Fuel Oil (OS2)
Actual Average NOx lb/MMBTU	0.048	0.078
Actual Average NOx lb/MWh	0.741	1.26
2015 HEDD Unit NOx lb/MWh limit	1.0	1.6

⇨ CT #2 2015 HEDD Unit NOx emission limit lb/MMBTU equivalent
= (1.0 lb/MWh) x (0.048 lb/MMBTU)/(0.741 lb/MWh) = **0.065 lb/MMBTU (gas)**
= (1.6 lb/MWh) x (0.078 lb/MMBTU)/(1.26 lb/MWh) = **0.100 lb/MMBTU (oil)**

(3) The proposed Maximum Allowable NOx Emission Rate for the starter diesel engines (U1304 & U1305) is based on the manufacturer's emissions specification of 8,640 grams NOx per hour at rated load and the maximum hourly gross heat input rate (4.72 MMBTU/hr):

(8640 grams/hr) * (1/4.72 MMBTU/hr) * (1 lb/453.59 grams) = 4.04 lb/MMBTU.
4.04 lb/MMBTU * 1.1 (margin) = 4.44 lb/MMBTU

(4) NOx emission limits for liquid-fueled stationary reciprocating combustion engines from NJAC 7:27-19.8(c). For the starter diesels: (8 grams/bhp-hr)*(620 BHP) * (1/4.72 MMBTU/hr) * (1 lb/453.59 grams) = 2.3 lb/MMBTU.

Table 3: Averaging Plan TPEE and TPAE

U1302 (CT #1)	**OS1**	**OS2**	**OS3**
Maximum NOx Emission Rate	0.050 lb/MMBTU	0.099 lb/MMBTU	0.060 lb/MMBTU
Allowable NOx Emission Rate	0.066 lb/MMBTU	0.103 lb/MMBTU	0.066 lb/MMBTU
Peak Daily Heat Input	13,200 MMBTU	13,200 MMBTU	14,160 MMBTU
Peak Estimated NOx Emissions	660 lbs	1,307 lbs	850 lbs
Peak Allowable NOx Emissions	871 lbs	1,360 lbs	920 lbs
U1303 (CT #2)	**OS1**	**OS2**	**OS3**
Maximum NOx Emission Rate	0.050 lb/MMBTU	0.099 lb/MMBTU	N/A
Allowable NOx Emission Rate	0.065 lb/MMBTU	0.100 lb/MMBTU	
Peak Daily Heat Input	13,200 MMBTU	13,200 MMBTU	
Peak Estimated NOx Emissions	660 lbs	1,307 lbs	
Peak Allowable NOx Emissions	858 lbs	1,320 lbs	
U1304 & U1305 (CT Starter Engine #1 & #2) – Each Unit			
Maximum NOx Emission Rate	4.44 lb/MMBTU		
Allowable NOx Emission Rate	2.3 lb/MMBTU		
Peak Daily Heat Input	28.32 MMBTU		
Peak Estimated NOx Emissions	125.7 lbs		

Peak Allowable NOx Emissions	65.1 lbs		
Totals for All NOx Averaging Units			
Total Peak Estimated Emissions (TPEE)	1,446 lbs	2,740 lbs	976 lbs
Total Peak Allowable Emissions (TPAE)	1,794 lbs	2,745 lbs	985 lbs
TPEE ≤ TPAE	Yes	Yes	Yes

PART II – ALTERNATIVE MONITORING PLAN

A. Unit and Facility Identification

Pursuant to NJAC 7:27-19.18, Forked River, LLC Power is proposing the use of an alternative monitoring plan for determining the actual NOx emission rates from the units included in the averaging plan in Part 1 of this application. These units, located at the Forked River Power facility in Lacey Township, NJ, are:

Unit ID	Description	Make	Model
U1302	Combustion Turbine #1	General Electric	PG6541(B)
U1303	Combustion Turbine #2	General Electric	PG6541(B)
U1304	CT Starter Engine #1	Detroit Diesel	71237300
U1305	CT Starter Engine #2	Detroit Diesel	71237300

B. Operating Modes and Emission Test Results

1. *Combustion Turbines (U1302 & U1303)* - The combustion turbine generators are permitted for several different Operating Scenarios on natural gas and #2 fuel oil. Emissions compliance tests for these units are performed at least once every five years in accordance with the facility's Title V Operating Permit. The results of the most recent testing are as follows:

Table 4: U1302 & U1303 NOx Emissions Test Results

Unit	Fuel Type	Operating Mode	Test Completion Date	Average NOx Emission Rate	
				lb/MMBTU	lb/MWh
U1302	natural gas	Low Load (30 MW)	11/7/2019	0.018	0.278
		Base Load	10/8/2019	0.018	0.278
		Peak Load	10/8/2019	0.038	0.583
	#2 fuel oil	Base Load	10/9/2019	0.098	1.51
U1303	natural gas	Low Load (30 MW)	10/10/2019	0.048	0.741
		Base Load	10/10/2019	0.048	0.741
	#2 fuel oil	Base Load	11/6/2019	0.078	1.26

2. *CT Starter Diesel Engines (U1304 & U1305)* - The CT Starter Engines operate during startup of the combustion turbines for less than 30 minutes per occurrence. The engines may also be operated for maintenance and testing purposes. Emissions compliance tests for these units are performed at least once every five years in accordance with the facility's Title V Operating Permit. The results of the most recent testing are as follows:

Table 5: U1304 & U1305 NOx Emissions Test Results

Unit	Test Completion Date	Average NOx Emission Rate lb/MMBTU
U1304	10/3/2019	2.93
U1305	10/3/2019	2.43

C. Proposed Alternative Monitoring

1. *Combustion Turbines (U1301 & U1302)* - The combustion turbines are subject to NOx monitoring and reporting in accordance with 40 CFR Part 75. Forked River Power uses the Low

Mass Emission (LME) unit procedures of 40 CFR 75.19 to determine the NOx mass emissions from these units. This involves the use of unit-specific default NOx emission rates (determined from emissions testing) for base and peak load operations and heat input values calculated from the measured fuel flow to the combustion turbines.

In addition, for operating modes that utilize water injection for NOx control, 40 CFR 60 Subpart GG and the facility's Title V operating permit require continuous monitoring of the water to fuel ratio to verify proper operation of the NOx controls.

Forked River Power proposes similar procedures for the determination of the CT NOx emission rate for the purposes of the averaging plan. Specifically:

a. The combustion turbine NOx Emission Rate for periods of Low Load, Base Load and Peak Load operations will be assumed to be equal to the corresponding average NOx emission rate from the most recent NOx emissions test results for the fuel being fired.

b. NOx Emissions testing for the combustion turbines will be conducted at least every five years as specified in the facility's Title V operating permit.

c. The combustion turbine NOx Emission Rate for operating modes for which a stack test has not been performed (e.g. startup and shutdown) will conservatively be assumed to be equal to the corresponding Maximum NOx Emission Rate (i.e. permit limit) for that operating mode and fuel type.

d. The water to fuel injection ratio and combustion parameters for each combustion turbine will be continuously monitored to verify proper operation of the NOx controls.

e. Heat input to each combustion turbine will be determined by multiplying the natural gas and/or fuel oil flow, measured by unit fuel flow meters, times the heating value for the fue1 as provided by the fuel supplier or as determined from fuel sampling and analysis.

2. *CT Starter Diesel Engines (U1303 & U1304)* - The combustion turbine starter diesel engines are not equipped with NOx controls or monitoring equipment for NOx emissions. Forked River Power will calculate the actual emissions from the diesel engines based on the most recent NOx emission test results and the metered fuel usage for the engines when these data are available. Specifically:

a. The starter diesel NOx Emission Rate (in lb/MMBTU) will be assumed to be equal to the average emission rate recorded during the most recent NOx emission test for the engine.

b. The heat input rate for each starter diesel engine will be calculated based on the metered fuel usage for the averaging period times the heating value of the fuel (hhv) from fuel supplier data or analysis test results. If valid fuel usage or heating value data are not available, then the heat input rate for the starter diesel engine will be assumed to be equal to the design heat

input rate (4.72 MMBTU/hr) whenever the unit is operating.

c. The duration of each period of operation for the starter diesel engines will be recorded.

For both the combustion turbine and starter diesel engines, the daily and monthly NOx emissions will be calculated and recorded as specified in NJAC 7:27-19.6(d) & (f).

FORKED RIVER POWER LLC
PI # 78912

Appendix III

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.