



# State of New Jersey

Department of Environmental Protection

Air Quality, Energy and Sustainability

Division of Air Quality

Bureau of Stationary Sources

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

Trenton, NJ 08625-0420

PHILIP D. MURPHY

Governor

CATHERINE R. McCABE

Commissioner

SHEILA Y. OLIVER

Lt. Governor

## Air Pollution Control Operating Permit Renewal

**Permit Activity Number: BOP190001**

**Program Interest Number: 18195**

Mailing Address	Plant Location
THOMAS P MILLER PRESIDENT RED OAK POWER LLC 832 RED OAK LN Sayreville, NJ 08872	RED OAK POWER LLC 832 Red Oak Ln Sayreville Middlesex County

**Initial Operating Permit Approval Date: July 28, 2005**

**Operating Permit Approval Date: DRAFT**

**Operating Permit Expiration Date: July 27, 2025**

### 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.

Consequently, pursuant to N.J.A.C. 7:27-22.33, all preconstruction permits and operating certificates issued to this facility have been incorporated in this operating 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 Aliya M. Khan at (609) 292-2169.

Approved by:

\_\_\_\_\_  
Joel Leon

Enclosure

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

**Facility Name: RED OAK POWER LLC**  
**Program Interest Number: 18195**  
**Permit Activity Number: BOP190001**

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**Section A**

**Facility Name: RED OAK POWER LLC  
 Program Interest Number: 18195  
 Permit Activity Number: BOP190001**

**POLLUTANT EMISSIONS SUMMARY**

Table 1: Total emissions from all Significant Source Operations<sup>1</sup> at the facility.

Facility's Potential Emissions from all Significant Source Operations (tons per year)										
Source Categories	VOC (total)	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs* (total)	CO <sub>2</sub> e <sup>2</sup>
Emission Units Summary	103	292	705	104	345	345	345	N/A	2.82	
Batch Process Summary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Group Summary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Emissions	103	292	705	104	345	345	345	N/A	2.82	3,861,124

Table 2: Estimate of total emissions from all Insignificant Source Operations<sup>1</sup> 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 <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs (total)
Insignificant Source Operations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-Source Fugitive Emissions <sup>3</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

VOC: Volatile Organic Compounds      TSP: Total Suspended Particulates      PM<sub>2.5</sub>: Particulates under 2.5 microns  
 NO<sub>x</sub>: Nitrogen Oxides                      Other: Any other air contaminant                      Pb: Lead  
 CO: Carbon Monoxide                      regulated under the Federal CAA                      HAPs: Hazardous Air Pollutants  
 SO<sub>2</sub>: Sulfur Dioxide                      PM<sub>10</sub>: Particulates under 10 microns                      CO<sub>2</sub>e: 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.

<sup>1</sup> Significant Source Operations and Insignificant Source Operations are defined at N.J.A.C. 7:27-22.1.  
<sup>2</sup> Total CO<sub>2</sub>e emissions for the facility that includes all Significant Source Operations (emission units, batch process, group) and Insignificant Source Operations.  
<sup>3</sup> Non-Source Fugitive Emissions are defined at N.J.A.C. 7:27-22.1 and are included if the facility falls into one or more categories listed at N.J.A.C. 7:27-22.2(a)2.

**Section A**

**Facility Name: RED OAK POWER LLC  
Program Interest Number: 18195  
Permit Activity Number: BOP190001**

**POLLUTANT EMISSIONS SUMMARY**

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

HAP	TPY
Acetaldehyde	0.135
Acrolein	0.022
Arsenic	0.000014
Benzene	0.041
Cadmium	0.000077
Formaldehyde	2.403
Ethylbenzene	0.11
Naphthalene	0.0044
Propylene Oxide	0.098
Total POM	0.00743

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

Other Air Contaminant	TPY
Ammonia	347
Sulfuric Acid	63.6
Methane	63.2
Nitrous Oxide	6.32

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<sup>4</sup> 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: RED OAK POWER LLC**  
**Program Interest Number: 18195**  
**Permit Activity Number: BOP190001**

### 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]

**Section C**

**Facility Name: RED OAK POWER LLC**

**Program Interest Number: 18195**

**Permit Activity Number: BOP190001**

**STATE-ONLY APPLICABLE REQUIREMENTS**

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

**STATE-ONLY APPLICABLE REQUIREMENTS**

The following applicable requirements are not federally enforceable:

<u>SECTION</u>	<u>SUBJECT ITEM</u>	<u>ITEM #</u>	<u>REF. #</u>
B	---	1	---
B	---	13b	---
D	FC	---	3
D	FC	---	9
D	GR1	---	1-13

**Section D**

**Facility Name: RED OAK POWER LLC**  
**Program Interest Number: 18195**  
**Permit Activity Number: BOP190001**

**FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES**

**FACILITY SPECIFIC REQUIREMENTS PAGE INDEX**

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

**Facility (FC):**

FC	1
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**Insignificant Sources (IS):**

<b>IS NJID</b>	<b>IS Description</b>	
IS1	Water or wastewater treatment equipment <100 ppbw each TXS &<3500 ppbw total VOC	6

**Groups (GR):**

<b>GR NJID</b>	<b>GR Designation</b>	<b>GR Description</b>	
GR1	RGGI	RGGI	7

**Emission Units (U):**

<b>U NJID</b>	<b>U Designation</b>	<b>U Description</b>	
U1	Elec Gen	Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr	17
U2	Cooling Tower	Ten Cell Cooling Tower (200,000 gal/min capacity)	51
U3	NH3 Tank	20,000 Gallon Ammonia Storage Tank	54
U7	Heater	Fuel Gas Heater (16 MMBTU/hr)	55

**RED OAK POWER LLC (18195)  
BOP190001**

Date: 12/29/202

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

**Permit Being Modified**

**Permit Class:** BOP      **Number:** 180001

**Description of Modifications:** Red Oak Power LLC is submitting this enclosed application to renew the Title V Operating Permit for the facility located in Sayreville, New Jersey. The Title V permit expires on July 27, 2020.

In accordance with N.J.A.C. 7:27-22.4(e), Red Oak Power is submitting this renewal application at least 15 months prior to permit expiration, so that any deficiencies identified in the application can be addressed and the enclosed renewal application can qualify for an "application shield" pursuant to N.J.A.C. 7:27-22.7(b). The current Title V permit (BOP180001) was approved on August 28, 2018.

Please see the application package for more details.

BOP190001

**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.	<p>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.</p> <p>The NJDEP online web portal can be accessed at:  <a href="http://www.state.nj.us/dep/online/">http://www.state.nj.us/dep/online/</a>. 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]</p>
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)].	<p>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)]</p>
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]

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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: <a href="http://www.state.nj.us/dep/online/">http://www.state.nj.us/dep/online/</a> . 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]

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<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
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.

BOP190001

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**Subject Item:** IS1 Water or wastewater treatment equipment <100 ppbw each TXS &<3500 ppbw total VOC

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	For water treatment equipment, the concentration in the water of any TXS must be less than 100 parts per billion by weight or the total concentration in the water of VOC must be less than 3,500 parts per billion by weight; [N.J.A.C. 7:27-22.1]	None.	None.	None.

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Subject Item: GR1 RGGI

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

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

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

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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.	<p>Submit a report: As per the approved schedule. For each control period, including the initial control period, in which a CO2 budget source is subject to the CO2 requirements of N.J.A.C 7:27C-1.4, the CO2 authorized account representative shall submit, to the Bureau of Energy and Sustainability, by March 1 following each relevant three-calendar-year control period, the compliance certification report that includes the following elements listed in N.J.A.C. 7:27C-4.1(b):</p> <ol style="list-style-type: none"> <li>1. Identification of the CO2 budget source and each CO2 budget unit at the source;</li> <li>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</li> <li>3. The compliance certification:</li> </ol> <p>In the compliance certification report, the CO2 authorized account representative shall certify whether the CO2 budget source and each CO2 budget unit at the source for which the compliance certification is submitted was operated, during the calendar years covered by the report, in compliance with the requirements of the CO2 Budget Trading Program, based on reasonable inquiry of those persons with primary responsibility for operating the CO2 budget source and the CO2 budget units at the source in compliance with the CO2 Budget Trading Program. [N.J.A.C. 7:27C-4.1(b)] and. [N.J.A.C. 7:27C- 4.1]</p>

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

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

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

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

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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:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Subject Item:** CD1 Combined Cycle Unit No. 1 Selective Catalytic Reduction System, CD3 Combined Cycle Unit No. 2 Selective Catalytic Reduction System, CD5 Combined Cycle Unit No. 3 Selective Catalytic Reduction System

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Except during startup and shutdown, the SCR system (including the ammonia injection) shall be operational at all times the turbine is operating. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Ammonia Flow Rate to SCR <= 72.11 gal/hr (19% Ammonium Hydroxide solution in water). [N.J.A.C. 7:27-22.16(a)]	Ammonia Flow Rate to SCR: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]	Ammonia Flow Rate to SCR: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
3	The SCR catalyst array(s) shall be maintained and replaced in accordance with the recommendations of the manufacturer, and as necessary based on emission levels indicated through continuous/portable emission monitoring. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by emission levels indicated through continuous/portable emission monitoring.[N.J.A.C. 7:27-22.16(o)].	Other: Maintain the SCR catalysts maintenance and replacement records.[N.J.A.C. 7:27-22.16(o)].	None.
4	Temperature at Catalyst Bed <= 800 degrees F, while working at 100% load. [N.J.A.C. 7:27-22.16(a)]	Temperature at Catalyst Bed: Monitored by temperature instrument continuously, based on a 1 hour block average The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Temperature at Catalyst Bed: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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**Emission Unit:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Subject Item:** CD2 Combined Cycle Unit No. 1 Oxidation Catalyst, CD4 Combined Cycle Unit No. 2 Oxidation Catalyst, CD6 Combined Cycle Unit No. 3 Oxidation Catalyst

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The catalyst array(s) shall be maintained and replaced in accordance with the recommendations of the manufacturer. [N.J.A.C. 7:27-22.16(e)]	Monitored by documentation of construction once initially. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain Catalytic Oxidizer system manufacturer's documentation, specifications, and operation & maintenance manual (O&M) on-site.[N.J.A.C. 7:27-22.16(o)].	None.
2	The catalyst shall be changed once the useful life has been reached. [N.J.A.C. 7:27-22.16(e)]	Monitored by documentation of construction once initially. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain Catalytic Oxidizer system manufacturer's documentation, specifications, and operation & maintenance manual (O&M) on-site.[N.J.A.C. 7:27-22.16(o)].	None.
3	Minimum VOC Destruction and Removal Efficiency $\geq 80\%$ . The catalytic oxidizer shall be designed to operate at or above the minimum VOC destruction and removal efficiency. [N.J.A.C. 7:27-22]	Minimum VOC Destruction and Removal Efficiency: Monitored by stack emission testing once initially, based on the average of three 1-hour tests. [N.J.A.C. 7:27-22.16(e)]	Minimum VOC Destruction and Removal Efficiency: Recordkeeping by stack test results once initially. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(e)]
4	Except during startup and shutdown, the oxidation catalyst shall be operational at all times the turbine is operating. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Temperature at Catalyst Bed $\leq 800$ degrees F, while working at 100% load. [N.J.A.C. 7:27-22.16(a)]	Temperature at Catalyst Bed: Monitored by temperature instrument continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Temperature at Catalyst Bed: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
6	Destruction and Removal Efficiency $\geq 80\%$ . The catalytic oxidizer shall be designed to operate at or above the minimum CO destruction and removal efficiency. [N.J.A.C. 7:27-22]	Destruction and Removal Efficiency: Monitored by stack emission testing once initially, based on the average of three 1-hour tests. [N.J.A.C. 7:27-22.16(e)]	Destruction and Removal Efficiency: Recordkeeping by stack test results once initially. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(e)]

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**Emission Unit:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: NSPS Subpart A NSPS Subpart GG 40 CFR 72 - Acid Rain 40 CFR 97 - CSAPR 40CFR52.21 - PSD [None]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p><b>STACK TESTING SUMMARY</b>                      The permittee shall conduct a stack test at least 18 months prior to the expiration of the renewed operating permit using an approved protocol to demonstrate compliance with emission limits for CO, NOx, VOC, Ammonia, TSP, and PM10 as specified in the compliance plan for OS1, OS4 and OS7. The permittee shall provide EMS with the turbine load performance curve with the protocol.                      Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.                      The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NOx and/or CO, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above.                      [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit.</p> <p>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: <a href="http://www.epa.gov/ttnchie1/ert">http://www.epa.gov/ttnchie1/ert</a>. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and . [N.J.A.C. 7:27-22.16(o)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>CEMS/COMS REQUIREMENTS SUMMARY</p> <p>The Permittee shall operate CEMS according to the approved certification and in compliance with daily, quarterly, and annual quality assurance requirements. The CEMS shall include continuous monitoring of all necessary parameters (e.g. oxygen, moisture, temperature, flow rate) to allow the required corrections to be applied to demonstrate compliance with the emission limits.</p> <p>The Permittee shall request approval from the Department's Emission Measurement Section (EMS) to allow continued use of the existing CEMS when a change to the units of measurement is made to a permit limit. [N.J.A.C. 7:27-22.16(a)]</p>	None.	None.	Comply with the requirement: Upon occurrence of event. Submit a written request to the EMS within 30 days from the date of the approved operating permit to determine whether a full CEMS recertification is required, whether the change can follow the procedures for data recording and storage equipment upgrades found in the Department's Technical Manual 1005 Section IV.B.3(f), or if continued use of the existing CEMS is allowed. [N.J.A.C. 7:27-22]
4	<p>The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQPP webpage at <a href="http://www.state.nj.us/dep/aqpp">http://www.state.nj.us/dep/aqpp</a>. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by other method (provide description) annually The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by other recordkeeping method (provide description) at no required frequency Other: Maintain readily accessible records of the QA/QC plan including QA date and quarterly reports. [N.J.A.C. 7:27-22.16(o)]. [N.J.A.C. 7:27-22.16(o)]</p>	None.
5	<p>Opacity &lt;= 20 %. No person shall cause, suffer, allow or permit smoke 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]</p>	None.	None.	None.
6	<p>Particulate Emissions &lt;= 218 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)]</p>	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	CO <= 250 ppmvd @ 15% O2. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(e)]	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. [N.J.A.C. 7:27-22.16(o)]
8	VOC (Total) <= 50 ppmvd @ 15% O2. [N.J.A.C. 7:27-16.9(c)]	VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three 1-hour tests (For stack testing details, see U1 OS Summary). [N.J.A.C. 7:27-16.23(a)2]	VOC (Total): Recordkeeping by stack test results prior to permit expiration date (For stack testing details, see U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (For stack testing details, see U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
9	NOx (Total) <= 1.3 lb/MW-hr during natural gas combustion. [N.J.A.C. 7:27-19.5(d)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-19.15(a)1]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	<p>The owner or operator of a stationary combustion turbine that has a maximum gross heat input rate of 25 million BTU per hour or more shall ensure that the adjustment of the combustion process is carried out according to the manufacturer's recommended procedures and maintenance schedules as set forth at N.J.A.C. 7:27-19.16(g). [N.J.A.C 7:27-22.16(a)], [N.J.A.C. 7:27-16.9(f)] and [N.J.A.C. 7:27-19.5(e)]</p>	<p>Other: Monitored by continuous emission monitoring (CEMS) or by periodic emission monitoring upon performing combustion adjustment. If not using a certified CEMS, monitoring shall be performed in accordance with the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005. [N.J.A.C. 7:27-19.16(g)].</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage upon performing combustion adjustment or by manual logging of parameter or storing data in a computer data system. The permittee shall record the following information for each adjustment in a log book or computer data system: 1. The date and times the adjustment began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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. The records shall be kept for a minimum of 5 years and be readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(h)]</p>	<p>None.</p>
11	<p>Ammonia &lt;= 10 ppmvd. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Ammonia: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Ammonia: Recordkeeping by stack test results prior to permit expiration date (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	<p>VOC (Total) &lt;= 102.5 tons/yr. Total for three turbines. These VOC emissions include Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)]</p>	<p>VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total VOC shall be calculated as follows:</p> <p>Total Monthly VOC Emissions =</p> <p>[MMft<sup>3</sup> of natural gas burned for all three turbines per month x 1,000 BTU/ft<sup>3</sup> x 0.00405 lbs./MMBtu x 1 ton/2,000 lbs.] + [startup hours per month x 87 lbs/hr x 1 ton/2,000 lbs.]</p> <p>Annual emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. Record annual emissions.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Bu/scf. An emission factor in lb./MMBtu determined as the average of the three values in compliance stack testing of each turbine, may also be substituted for the default emission factor, at the discretion of the permittee. [N.J.A.C. 7:27-22.16(o)]</p>	<p>VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NOx (Total) <= 284 tons/yr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total NOx shall be calculated as follows:</p> <p>Total Monthly NOx Emissions for three turbines=</p> <p>[tons of NOx during the normal operating scenario per month for all thee turbines (from CEM data)] + [total startup hours per month for three turbines x 111 lbs/hr x 1 ton/2000 lbs.]</p> <p>Annual emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. [N.J.A.C. 7:27-22.16(o)]</p>	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
14	CO <= 701.1 tons/yr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total CO shall be calculated as follows:</p> <p>Total Monthly CO Emissions for three turibnes =</p> <p>[tons of CO during the normal operating scenario per month for three turbines (from CEM data)] + [total startup hours per month for three turbines x 504 lbs/hr x 1 ton/2000 lbs.]</p> <p>Total Annual CO Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	Sulfuric Acid Mist Emissions <= 63.6 tons/yr [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>Sulfuric Acid Mist Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total Sulfuric Acid shall be calculated as follows:</p> <p>Total Monthly Sulfuric Acid Emissions =</p> <p>[MMFt<sup>3</sup> of natural gas burned for all three turbines per month x 1000 BTU/ft<sup>3</sup> x 0.00263 lbs./ MMBtu x 1 ton/ 2000 lbs.]</p> <p>Total Annual Sulfuric Acid Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. Record annual emissions.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Btu/scf. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Sulfuric Acid Mist Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <= 103.8 tons/yr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>SO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis) The annual emissions of total SO2 shall be calculated as follows:</p> <p>Total Monthly SO2 Emissions =</p> <p>[MMft<sup>3</sup> of natural gas burned for all three turbines per month x 1,000 BTU/ft<sup>3</sup> x 0.0043 lbs/MMBtu x 1 ton/2,000 lbs].</p> <p>Total Annual SO2 Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. Record annual emissions.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Bu/scf. An emission factor in lb./MMBtu determined as the average of the three values in compliance stack testing of each turbine, may also be substituted for the default emission factor, at the discretion of the permittee. [N.J.A.C. 7:27-22.16(o)]</p>	<p>SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	TSP <= 328.8 tons/yr [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total TSP shall be calculated as follows:</p> <p>Total Monthly TSP Emissions =</p> <p>[MMft<sup>3</sup> of natural gas burned for all three turbines per month x 1,000 BTU/ft<sup>3</sup> x 0.01351 lbs./MMBtu x 1 ton/2,000 lbs.]</p> <p>Total Annual TSP Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months. Record annual emissions.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Bu/scf. An emission factor in lb./MMBtu determined as the average of the three values in compliance stack testing of each turbine, may also be substituted for the default emission factor, at the discretion of the permittee. [N.J.A.C. 7:27-22.16(o)]</p>	<p>TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
18	PM-10 (Total) <= 328.8 tons/yr [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	<p>PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The annual emissions of total PM-10 shall be calculated as follows:</p> <p>Total Monthly PM-10 Emissions =</p> <p>[MMft<sup>3</sup> of natural gas burned for all three turbines per month x 1,000 BTU/ft<sup>3</sup> x 0.01351 lbs./MMBtu x 1 ton/2,000 lbs.]</p> <p>Total Annual PM10 Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Bu/scf. An emission factor in lb./MMBtu determined as the average of the three values in compliance stack testing of each turbine, may also be substituted for the default emission factor, at the discretion of the permittee. [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
19	PM-2.5 (Total) <= 328.8 tons/yr. [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	<p>Ammonia &lt;= 347 tons/yr. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Ammonia: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). Annual emissions of total Ammonia shall be calculated as follows:</p> <p>Total Monthly Ammonia Emissions=</p> <p>[MMft<sup>3</sup> of natural gas burned per month for all three turbines x 1000 Btu/ft<sup>3</sup> x 0.0135 lbs./MMBtu x 1 ton/2,000 lbs.]</p> <p>Total Annual Ammonia Emissions in tons/year = total monthly emissions for a given month added to total monthly emissions from the previous 11 months.</p> <p>In calculating the turbine emissions, the permittee may substitute the actual measured fuel heat content for the default value of 1020 Bu/scf. An emission factor in lb./MMBtu determined as the average of the three values in compliance stack testing of each turbine, may also be substituted for the default emission factor, at the discretion of the permittee. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]</p>	None.
21	<p>Acetaldehyde &lt;= 0.135 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Acetaldehyde: Monitored by calculations once initially . [N.J.A.C. 7:27-22.16(o)]</p>	<p>Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Acrolein <= 0.022 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
23	Benzene <= 0.041 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially Keep records of initial calculations. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
24	Formaldehyde <= 2.398 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
25	Ethylbenzene <= 0.11 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(e)]	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	Methane <= 63.2 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, and emission factor (lb/MMBtu) for natural gas firing contained in Table C-2 to Subpart C of 40 CFR 98 (Default CH4 and N2O Emission Factors for Various Types of Fuel). [N.J.A.C. 7:27-22.16(o)]	Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
27	Nitrous oxide <= 6.32 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, and emission factor (lb/MMBtu) for natural gas firing contained in Table C-2 to Subpart C of 40 CFR 98 (Default CH4 and N2O Emission Factors for Various Types of Fuel). [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
28	Naphthalene <= 0.0044 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
29	Propylene oxide <= 0.098 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	Polycyclic organic matter <= 0.00743 tons/yr total for three turbines. Emission limit per turbine is based on maximum heat input rate in MMBtu/hr (HHV) of each turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Polycyclic organic matter: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
31	Only natural gas shall be combusted into the stationary gas turbine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
32	Natural Gas Usage <= 63,122.16 MMft <sup>3</sup> /yr. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install and operate a running gas use-totallizing meter on each turbine to monitor the consumption of natural gas, per turbine, in any 365 consecutive days period. The running gas meter shall be installed, operated, and calibrated according to manufacturer's recommendations. [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 determined based on any 365 consecutive day period. Cubic feet per any 365 consecutive days period shall be calculated by the sum of the cubic feet calculated during any one day added to the sum of the cubic feet calculated during the preceding 364 days. [N.J.A.C. 7:27-22.16(o)]	None.
33	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Region II, Director, Air and Waste Management Division, US Environmental Protection Agency, 21st Floor, 290 Broadway, New York, NY 10007. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region II as required by 40 CFR 60. [40 CFR 60.4(a)]
34	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: Upon occurrence of event to NJDEP Southern Regional Enforcement Office, 1 Port Center, 2 Riverside Drive, Camden, NJ 08013. [40 CFR 60.4(b)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region II and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(1)]
36	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region II and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(3)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	<p>The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in section 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]</p>	None.	None.	<p>Submit notification: Prior to occurrence of event. Submit written notification within 60 days prior to, or as soon as practicable, the commencement of the change. [40 CFR 60.7(a)(4)]</p>
38	<p>The owner or operator shall furnish the Administrator written notification as follows:</p> <p>A notification of the date upon which demonstration of the continuous emission monitoring system performance commences in accordance to 40 CFR 60.13(c). The notification shall be postmarked no less than 30 days prior to such date. [40 CFR 60.7(a)(5)]</p>			<p>Submit notification: 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) to the Department for review and approval. [40 CFR 60.7(a)(5)]</p>
39	<p>The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]</p>	None.	<p>Recordkeeping by manual logging of parameter upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]</p>	None.

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

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

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

<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
42	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.
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	Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems measuring emissions except opacity shall be in continuous operation. They shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(2)]	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
45	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.
46	NOx (Total) <= 75 ppmvd @ 15% O2. [40 CFR 60.332(a)(1)]	None.	NOx (Total): Recordkeeping by stack test results once initially. Keep records of initial stack testing results. [40 CFR 60.335]	None.
47	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)]	Other: 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 §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration: (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.[40 CFR 60.334(h)(3)].	None.	None.
48	The owner or operator shall perform zero and span adjustments daily for continuous emission monitors and continuous opacity monitors following procedures outlined in 40 CFR Part 60.13(d)1 & 2. [40 CFR 60.13(d)]	None.	Maintain records in accordance with 40 CFR 60.7(f). Recordkeeping by data acquisition system (DAS) / electronic data storage at the approved frequency. [40 CFR 60.13(d)]	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
49	<p>The owner or operator shall reduce all continuous monitoring systems (other than opacity) data to 1-hour averages which shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in 40 CFR 60.7(f)(1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng of pollutant per J of heat input). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g. rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)]</p>	None.	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The data may be recorded in reduced or non-reduced form. [40 CFR 60.13(h)]	None.
50	Acid Rain:Comply with the requirements contained in the attached Acid Rain Permit. [40 CFR 72]	Other: Acid Rain:Comply with the requirements contained in the attached Acid Rain Permit.[40 CFR 72].	Other: Acid Rain:Comply with the requirements contained in the attached Acid Rain Permit.[40 CFR 72].	Other (provide description): Other Acid Rain:Comply with the requirements contained in the attached Acid Rain Permit. [40 CFR 72]
51	The permittee shall comply with all applicable requirements of Cross-State Air Pollution Rule (CSAPR) for the CSAPR NO <sub>x</sub> Annual Trading Program, CSAPR NO <sub>x</sub> Ozone Season Trading Program, and CSAPR SO <sub>2</sub> Trading Program applicable to this affected unit [40 CFR 97]	Other: As per the applicable requirement[40 CFR 97].	Other: As per the applicable requirement[40 CFR 97].	Other (provide description): Other. As per the applicable requirement. [40 CFR 97]

BOP190001

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**Emission Unit:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Operating Scenario:** OS1 Combined Cycle Unit No. 1 - Normal Operations, OS4 Combined Cycle Unit No. 2 - Normal Operations, OS7 Combined Cycle Unit No. 3 - Normal Operations

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 29.43 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
2	TSP <= 0.0135 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
3	PM-10 (Total) <= 29.43 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See Stack Testing Summary at U1 OS Summary for details. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date. See Stack Testing Summary at U1 OS Summary for details. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
4	PM-10 (Total) <= 0.0135 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	PM-10 (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See Stack Testing Summary at U1 OS Summary for details. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results prior to permit expiration date. See Stack Testing Summary at U1 OS Summary for details. [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 at U1 OS Summary for details. [N.J.A.C. 7:27-22.16(o)]
5	PM-2.5 (Total) <= 29.43 lb/hr. [N.J.A.C. 7:27-22.16(o)]	None.	None.	None.
6	VOC (Total) <= 9.14 lb/hr. These VOC emissions include Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	VOC (Total) <= 3 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	VOC (Total) <= 0.00405 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	CO <= 20.69 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	CO <= 4 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
11	SO2 <= 9.34 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
12	NOx (Total) <= 25.3 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
13	NOx (Total) <= 3 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(e)]	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. [N.J.A.C. 7:27-22.16(e)]
14	NOx (Total) <= 3 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
15	NOx (Total) <= 25.3 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	CO <= 20.69 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
17	CO <= 0.01 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
18	CO <= 0.01 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	CO: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
19	CO <= 4 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
20	NOx (Total) <= 0.0117 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	NOx (Total) <= 0.0117 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
22	SO2 <= 0.0043 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
23	Sulfuric Acid Mist Emissions <= 5.72 lb/hr. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
24	Sulfuric Acid Mist Emissions <= 0.0027 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)] and. [40 CFR 52.21]	None.	None.	None.
25	Ammonia <= 29.11 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
26	Ammonia <= 10 ppmvd @ 15% O2. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]
27	Ammonia <= 0.0135 lb/MMBTU. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results prior to permit expiration date. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (For stack testing details, see Stack Testing Summary at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	Methane <= 4.81 lb/hr. [N.J.A.C. 7:27-22.16(a)]	. Calculate by using the following equation: Methane: [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor ( lb/MMBtu) ] Methane: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
29	Nitrous oxide <= 0.481 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Nitrous oxide: Monitored by calculations once initially. Calculate by using the following equation: Nitrous oxide: [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor ( lb/MMBtu) ]. [N.J.A.C. 7:27-22.16(o)]	Nitrous oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
30	Acetaldehyde <= 0.00872 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations once initially. Calculate by using the following equation: Acetaldehyde (lb/hr): [Maximum Heat Input per Turbine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
31	Acrolein <= 0.0014 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations once initially. Calculate by using the following equation: Acrolein (lb/hr): [Maximum Heat Input per turbine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
32	Benzene <= 0.00262 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations once initially. Calculate by using the following equation: Benzene (lb/hr): [Maximum Heat Input per turbine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	Ethylbenzene <= 0.00698 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Ethylbenzene: Monitored by calculations once initially. Calculate by using the following equation: Ethylbenzene (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Ethylbenzene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
34	Formaldehyde <= 0.155 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. Calculate by using the following equation: Formaldehyde (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
35	Naphthalene <= 0.000283 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations once initially. Calculate by using the following equation: Naphthalene: [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
36	Propylene oxide <= 0.00632 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Propylene oxide: Monitored by calculations once initially. Calculate by using the following equation: Propylene oxide (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Propylene oxide: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
37	Polycyclic organic matter <= 0.00048 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Polycyclic organic matter: Monitored by calculations once initially. Calculate by using the following equation: Polycyclic (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Polycyclic organic matter: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.

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<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
38	Polynuclear aromatic hydrocarbons (PAHs) <= 0.00048 lb/hr emission limit based on maximum heat input rate in MMBtu/hr (HHV) of the turbine, 90 percent oxidation catalyst efficiency, and emission factor (lb/MMBtu) from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Polynuclear aromatic hydrocarbons (PAHs): Monitored by calculations once initially. Calculate by using the following equation: Polynuclear aromatic hydrocarbons (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (lb/MMBtu) x 0.1)]; where 0.1 is for oxidation catalyst control efficiency. [N.J.A.C. 7:27-22.16(o)]	Polynuclear aromatic hydrocarbons (PAHs): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Calculate by using the following equation: Polynuclear aromatic hydrocarbons (PAHs) (lb/hr): [Maximum Heat Input per Engine (MMBtu/hr) x (Emission Factor (2.2 E-06 lb/MMBtu))]. [N.J.A.C. 7:27-22.16(o)]	None.
39	Maximum Gross Heat Input <= 2,180 MMBTU/hr (HHV) (HHV) for each gas turbine while burning natural gas. [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 each hour during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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**Emission Unit:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Operating Scenario:** OS2 Combined Cycle Unit No. 1 - Startup, OS5 Combined Cycle Unit No. 2 - Startup, OS8 Combined Cycle Unit No. 3 - Startup

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Start-up Period: Start-up commences with the initiation of the combustion of fuel in the combustion turbine and concludes when the turbine reaches a steady state operation load. Start up period shall not exceed 21 hours total for the three combustion turbine units. [N.J.A.C. 7:27-22.16(a)]	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.
2	The annual emissions (in tons per year) during startup shall be calculated as follows:  Emission Rate Limit (in lbs./hr.) x Total Hours of startups during a year (hrs./yr.) x 1/2,000 (lbs./ton). For NOx and CO, in lieu of this calculation, the CEMS may be used to measure mass emissions during startups. [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 each month during operation showing the calculated value for the month and sum-to-date. [N.J.A.C. 7:27-22.16(o)]	None.
3	NOx (Total) <= 111 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. The limit shall apply when the three one-hour blocks include at least one startup. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
4	CO <= 504 lb/hr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. The limit shall apply when the three one-hour blocks include at least one startup. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary). [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

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<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
5	VOC (Total) <= 87 lb/hr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
6	TSP <= 29.4 lb/hr. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
7	PM-10 (Total) <= 29.4 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
8	PM-2.5 (Total) <= 29.4 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
9	SO2 <= 9.34 lb/hr. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
10	SO3 and H2SO4, as converted and expressed as H2SO4 <= 5.7 lb/hr. [N.J.A.C. 7:27-22.16(a)]	SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.

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

**Emission Unit:** U1 Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr

**Operating Scenario:** OS3 Combined Cycle Unit No. 1 - Shutdown, OS6 Combined Cycle Unit No. 2 - Shutdown, OS9 Combined Cycle Unit No. 3 - Shutdown

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Shutdown Period <= 120 minutes per turbine. Combustion turbine shutdown is defined as the period of time from the initial lowering of combustion turbine output of the base load until fuel flow is completely off and combustion has ceased. [N.J.A.C. 7:27-22.16(a)]	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.
2	TSP <= 29.43 lb/hr. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
3	PM-10 (Total) <= 29.43 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
4	PM-2.5 (Total) <= 29.43 lb/hr. From BOP140001. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
5	VOC (Total) <= 87 lb/hr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.
6	CO <= 504 lb/hr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	SO2 <= 9.34 lb/hr. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Other: Keep records of initial calculations[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. [N.J.A.C. 7:27-22.16(o)]

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

<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
8	NOx (Total) <= 111 lb/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system continuously. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. See CEMS REQUIREMENTS SUMMARY at U1 OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	SO3 and H2SO4, as converted and expressed as H2SO4 <= 5.7 lb/hr. [N.J.A.C. 7:27-22.16(a)]	SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(0)]	Other: Keep records of initial calculations[N.J.A.C. 7:27-22.16(o)].	None.

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

**Emission Unit:** U2 Ten Cell Cooling Tower (200,000 gal/min capacity)

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum annual emission limit from preconstruction permit. TSP <= 15.79 tons/yr. [N.J.A.C. 7:27-22.16(a)]	<p>TSP: Monitored by grab sampling each month during operation. TSP emissions are monitored by performing monthly sampling of the Total Dissolved Solids (TDS) concentrations in the circulating water (during Cooling Tower operation) , and then calculating TSP emissions in accordance with the following equation:</p> $TSP \text{ (lb/hr)} = 0.000501 \times D \times C \times TDS$ <p>where:</p> <p>0.000501 = units conversion constant                      D = drift rate (fraction of circulating water lost to drift) = 0.0005%                      C = circulating water rate (gal/min) = 199,800 gpm                      TDS = total dissolved solids concentration in circulating water (mg/l). [N.J.A.C. 7:27-22.16(o)]</p>	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	PM-10 (Total) <= 15.79 tons/yr. [N.J.A.C. 7:27-22.16(a)]	<p>PM-10 (Total): Monitored by grab sampling each month during operation. PM-10 emissions are monitored by performing monthly sampling of the Total Dissolved Solids (TDS) concentrations in the circulating water (during Cooling Tower operation) and then calculating PM-10 emissions in accordance with the following equation:</p> $\text{PM-10 (lb/hr)} = 0.000501 \times D \times C \times \text{TDS}$ <p>where:</p> <p>0.000501 = units conversion constant  D = drift rate (fraction of circulating water lost to drift) = 0.0005%  C = circulating water rate (gal/min) = 199,800 gpm  TDS = total dissolved solids concentration in circulating water (mg/l). [N.J.A.C. 7:27-22.16(o)]</p>	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	PM-2.5 (Total) <= 15.79 tons/yr. [N.J.A.C. 7:27-22.16(a)]	<p>PM-2.5 (Total): Monitored by grab sampling each month during operation</p> <p>PM-2.5 emissions are monitored by performing monthly sampling of the Total Dissolved Solids (TDS) concentrations in the circulating water (during Cooling Tower operation) and then calculating PM-2.5 emissions in accordance with the following equation:</p> $PM-2.5 \text{ (lb/hr)} = 0.000501 \times D \times C \times TDS$ <p>where:</p> <p>0.000501 = units conversion constant  D = drift rate (fraction of circulating water lost to drift) = 0.0005%  C = circulating water rate (gal/min) = 199,800 gpm  TDS = total dissolved solids concentration in circulating water (mg/l). [N.J.A.C. 7:27-22.16(o)]</p>	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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

**Emission Unit:** U2 Ten Cell Cooling Tower (200,000 gal/min capacity)

**Operating Scenario:** OS1 Ten Cell Cooling Tower - Normal Operation

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 7.8 lb/hr based on 0.02 grains per SCF (maximum SCF emitted from emission point). [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Opacity <= 20 %. Opacity limited to 20%, exclusive of condensed water vapor, for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)]	None.	None.	None.
3	TSP <= 3.6 lb/hr. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
4	PM-10 (Total) <= 3.6 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
5	PM-2.5 (Total) <= 3.6 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
6	Total solids concentration in the cooling tower circulating water =<12,000 mg/liter. [N.J.A.C. 7:27-22.16(a)]	Other: Circulating water analysis, once per month during cooling tower operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter each month during operation. Maintain records of circulating water analysis. [N.J.A.C. 7:27-22.16(o)]	None.
7	Water treatment chemicals containing hexavalent chromium shall not be added to the circulating water. [N.J.A.C. 7:27-22.16(a)]	Other: By review of process records showing materials/chemicals added/mixed. [N.J.A.C. 7:27-22.16(o)].	Other: Maintain process records showing date, time, and amount of materials/chemicals added/mixed. [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	<p>The raw materials added to the cooling tower circulating water shall be limited to the chemicals listed below:</p> <p>Non-oxidizing biocides (Isothiazoline derivatives)</p> <p>Microbiological control agent (Sodium Hypochlorite)</p> <p>pH control (Sulfuric Acid)</p> <p>Cooling Tower scale and corrosion control agent (with components: 2-Phosphono-1,2,4-butane tricarboxylic acid, Phosphoric acid, Quadrasperse copolymer, Water; or other non-HAP, non-Regulated constituents)</p> <p>Cooling water antifoulant ( with components: 2-Propenoic acid, sodium salt, homopolymer, 1, 1-oxybis, tetrapropylene benzene derivatives, sulfonated sodium salts, Water; or other non-HAP, non-Regulated constituents)</p> <p>Defoamer (Siloxane derivatives) [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: By review of process records showing materials/chemicals added/mixed.[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Maintain process records showing list of materials/chemicals added/mixed.[N.J.A.C. 7:27-22.16(o)].</p>	<p>None.</p>
9	<p>Total Material Transferred &lt;= 364.5 tons/yr of chemical additives. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Total Material Transferred: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Total Material Transferred: Recordkeeping by manual logging of parameter each week during operation in a permanently bound log book or readily accessible computer memory showing type of raw materials and amount of each chemical added with sum-to-date. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>
10	<p>Maximum cooling tower circulation water flow rate &lt;= 199,800 gallons per minute (gpm), for two Circulating Water Pumps each with a maximum capacity of 99,900 gpm. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by documentation of construction once initially. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall keep all records and documentation on-site. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

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

**Emission Unit:** U3 20,000 Gallon Ammonia Storage Tank

**Operating Scenario:** OS Summary

<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
1	If the tank is equipped with gauging and/or sampling systems, such systems shall be vapor-tight except when gauging or sampling is taking place. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Tank contents < 20.00% Ammonium Hydroxide solution. [N.J.A.C. 7:27-22.16(a)]	Other: For each delivery, monitor by reviewing delivery records such as MSDS, invoice, and/or bill of lading that show content, composition, and quantity of the delivery.[N.J.A.C. 7:27-22.16(o)].	Other: Maintain delivery records per delivery. The records shall indicate content of delivery, composition, quantity delivered, and date of delivery.[N.J.A.C. 7:27-22.16(o)].	None.
3	Total Material Transferred <= 1.895 MMgal/yr ammonia. [N.J.A.C. 7:27-22.16(a)]	Other: For each delivery, monitor by reviewing delivery records, invoice, and/or bill of lading that show content, composition, and quantity of the delivery.[N.J.A.C. 7:27-22.16(o)].	Other: Maintain delivery records per delivery. The records shall indicate content of delivery, composition, quantity delivered, and date of delivery with sum-to-date.[N.J.A.C. 7:27-22.16(o)].	None.

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New Jersey Department of Environmental Protection  
 Facility Specific Requirements

Emission Unit: U7 Fuel Gas Heater (16 MMBTU/hr)

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 0.53 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	VOC (Total) <= 0.48 tons/yr. These VOC emissions include Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	NOx (Total) <= 8.4 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	CO <= 3.77 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 0.3 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-10 (Total) <= 0.53 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) <= 0.53 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	Arsenic Emissions <= 0.000014 tons/yr emission limit based on maximum permitted fuel use and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
9	Cadmium Emissions <= 0.000077 tons/yr emission limit based on maximum permitted fuel use and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.

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

<b>Ref.#</b>	<b>Applicable Requirement</b>	<b>Monitoring Requirement</b>	<b>Recordkeeping Requirement</b>	<b>Submittal/Action Requirement</b>
10	Formaldehyde <= 0.0053 tons/yr emission limit based on maximum permitted fuel use and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
11	Maximum Gross Heat Input <= 16 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate for the heater[N.J.A.C. 7:27-22.16(o)].	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	<p>The owner or operator of an industrial/commercial/institutional boiler or other indirect heat exchanger with a gross heat input of at least five million BTU per hour or more shall adjust the combustion process annually in the same quarter of each calendar year.</p> <p>If the source is not operated during the quarter of the calendar year in which the annual adjustment is to be performed, the owner or operator shall perform the adjustment within seven days after the boiler or other indirect heat exchanger is next operated.</p> <p>The adjustment of the combustion process shall be done in accordance with the procedure set forth at N.J.A.C. 7:27-19.16 [N.J.A.C. 7:27-16.8(b)], [N.J.A.C. 7:27-16.8(c)] and [N.J.A.C. 7:27-19.7(g)]</p>	<p>Monitored by periodic emission monitoring annually. The owner or operator shall perform the adjustment of the combustion process in accordance with the combustion adjustment monitoring procedures specified in NJDEP Technical Manual 1005 and the procedure at N.J.A.C. 7:27-19.16(a) as follows: 1. Inspect the burner, and clean or replace any components of the burner as necessary; 2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern consistent with the manufacturer's specifications; 3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly; 4. Minimize the total emissions of NOx and CO consistent with the manufacturer's specifications; 5. Measure the concentrations in the effluent stream of NOx and CO in ppmvd and O2 in percent, before and after the adjustment is made; and 6. Convert the measured emission values of NOx, CO and O2 concentrations to lb/MMBTU according to the following formula: <math>Lb/MMBTU = ppmvd * MW * F \text{ dry factor} * O2 \text{ correction factor} / 387,000,000</math>, where: ppmvd is the concentration in parts per million by volume, dry basis, of NOx or CO; MW is the Molecular Weight for NOx=46 lb/lb-mole, CO=28 lb/lb-mole; F Dry factor for: Natural Gas = 8,710 dscf/MMBTU, Residual or fuel oil = 9,190 dscf/MMBTU; O2 correction factor: <math>(20.9\%)/(20.9\% - O2 \text{ measured})</math>, where O2 measured is percent oxygen on a dry basis. [N.J.A.C. 7:27-19.16(a)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment of 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 made the adjustment; 3. The NOx and CO concentrations in the effluent stream, in ppmvd, before and after each actual adjustment was made; 4. The concentration of O2 (in percent dry basis) at which the CO and NOx concentrations were measured; 5. A description of any corrective action taken; 6. Results from any subsequent test performed after taking any corrective action, including concentrations and converted emission values in (lb/MMBTU); 7. The type and amount of fuel used over the 12 months prior to the annual adjustment; 8. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the source operation. The records must be retained for a minimum of five years and to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(b)]</p>	<p>Submit a report: Annually. The owner or operator shall submit an annual adjustment combustion process report to the department within 45 days after the adjustment of the combustion process is completed. The report shall be submitted electronically to: <a href="http://www.njdeponline.com">www.njdeponline.com</a>. Instructions for submitting this report online are specified at: <a href="http://www.nj.gov/dep/aqpp/adjustment.htm">http://www.nj.gov/dep/aqpp/adjustment.htm</a>. [N.J.A.C. 7:27-19.16(d)] and [N.J.A.C. 7:27-19.16(c)]</p>

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	The owner or operator of the adjusted equipment or source operation shall ensure that the operating parameter settings are established and recorded after the combustion process is adjusted and that the adjusted equipment or source operation is maintained to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)]	Other: Monitored by the operating parameter settings that are established after the combustion process is adjusted in order to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted and retain until the next annual adjustment, to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(e)].	None.

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Facility Specific Requirements

Emission Unit: U7 Fuel Gas Heater (16 MMBTU/hr)

Operating Scenario: OS1 Fuel Gas Heater Normal

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Visible Emissions: No visible emissions, exclusive of visible condensed water vapor, except for a period of not longer than three minutes in any consecutive 30 minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Particulate Emissions <= 7.2 lb/hr Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	NOx (Total) <= 1.917 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	CO <= 0.86 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	VOC (Total) <= 0.11 lb/hr. These VOC emissions include Formaldehyde emissions. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.12 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 0.12 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-2.5 (Total) <= 0.12 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	SO2 <= 0.069 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Natural Gas Usage <= 140.16 MMft <sup>3</sup> /yr. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Add total monthly emissions for a given month to total monthly emissions from the previous 11 months. Record annual emissions. [N.J.A.C. 7:27-22.16(o)]	None.
11	Permittee's self imposed fuel type limit. Natural Gas only [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	Arsenic Emissions $\leq$ 0.00000299 lb/hr emission limit based on maximum heat input rate of 16.0 MMBtu/hr (HHV) of the turbine, and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
13	Cadmium Emissions $\leq$ 0.0000164 lb/hr emission limit based on maximum heat input rate of 16.0 MMBtu/hr (HHV) of the turbine, and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.
14	Formaldehyde $\leq$ 0.00112 lb/hr emission limit based on maximum heat input rate of 16.0 MMBtu/hr (HHV) of the turbine, and emission factor from AP 42, Volume I, Fifth Edition, Vol1, Tables 3.1-3, AP-42, Chapter 1.4, Table 1.4-3; AP-42, Chapter 1.4, Table 1.4-4. [N.J.A.C. 7:27-22.16(O)]	Formaldehyde: Monitored by calculations once initially. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [N.J.A.C. 7:27-22.16(o)]	None.

**RED OAK POWER LLC (18195)**  
**BOP190001**

Date: 12/29/2021

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

**Facility Name (AIMS):** Red Oak Power LLC

**Facility ID (AIMS):** 18195

**Street** RED OAK POWER LLC  
**Address:** 832 RED OAK LN  
SAYERVILLE, NJ 08872

**Mailing** RED OAK POWER LLC  
**Address:** 832 RED OAK LN  
SAYERVILLE, NJ 08872

**County:** Middlesex  
**Location** Borough of Sayreville, Middlesex County,  
**Description:** New Jersey

<b>State Plane Coordinates:</b>	
<b>X-Coordinate:</b>	40
<b>Y-Coordinate:</b>	74
<b>Units:</b>	Long/Lat
<b>Datum:</b>	Unknown
<b>Source Org.:</b>	Address Match
<b>Source Type:</b>	Approx. Addr. Match

<b>Industry:</b>	
<b>Primary SIC:</b>	4911
<b>Secondary SIC:</b>	
<b>NAICS:</b>	221112

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

**Contact Type: Air Permit Information Contact**

**Organization:** Red Oak Power, LLC

**Org. Type:** Private

**Name:** Robert Luzetsky

**NJ EIN:** 54188965800

**Title:** Compliance Supervisor

**Phone:** (732) 238-1462 x0201

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane

**Other:** ( ) - x

Sayreville, NJ 08872

**Type:**

**Email:** robert.luzetsky@naes.com

---

**Contact Type: Consultant**

**Organization:**

**Org. Type:**

**Name:**

**NJ EIN:**

**Title:**

**Phone:** ( ) - x

**Mailing Address:**

**Fax:** ( ) - x

**Other:** ( ) - x

**Type:**

**Email:**

---

**Contact Type: Emission Statements**

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Robert Luzetsky

**NJ EIN:** 54188965800

**Title:** Compliance Supervisor

**Phone:** (732) 238-1462 x0201

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane

**Other:** ( ) - x

Sayreville, NJ 08872

**Type:**

**Email:** robert.luzetsky@naes.com

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

**Contact Type: General Contact**

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Thomas P. Miller

**NJ EIN:** 54188965800

**Title:** President

**Phone:** (732) 238-1462 x0101

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane

**Other:** ( ) - x

Sayreville, NJ 08872

**Type:**

**Email:** tom.miller@tigergenco.com

---

**Contact Type: On-Site Manager**

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Thomas P. Miller

**NJ EIN:** 54188965800

**Title:** President

**Phone:** (732) 238-1462 x0101

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane

**Other:** ( ) - x

Sayreville, NJ 08872

**Type:**

**Email:** tom.miller@tigergenco.com

---

**Contact Type: Operator**

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Thomas P. Miller

**NJ EIN:** 54188965800

**Title:** President

**Phone:** (732) 238-1462 x0101

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane

**Other:** ( ) - x

Sayreville, NJ 08872

**Type:**

**Email:** tom.miller@tigergenco.com

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

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

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Thomas P. Miller

**NJ EIN:** 54188965800

**Title:** President

**Phone:** (732) 238-1462 x0101

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane  
Sayreville, NJ 08872

**Other:** ( ) - x

**Type:**

**Email:** tom.miller@tigergenco.com

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**Contact Type: Responsible Official**

**Organization:** Red Oak Power LLC

**Org. Type:** Private

**Name:** Thomas P. Miller

**NJ EIN:** 54188965800

**Title:** President

**Phone:** (732) 238-1462 x0101

**Mailing Address:** Red Oak Power LLC

**Fax:** (732) 238-4702 x

832 Red Oak Lane  
Sayreville, NJ 08872

**Other:** ( ) - x

**Type:**

**Email:** tom.miller@tigergenco.com

**RED OAK POWER LLC (18195)**  
**BOP190001**

Date: 12/29/2020

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

IS NJID	Source/Group Description	Equipment Type	Location Description	Estimate of Emissions (tpy)									
				VOC (Total)	NOx	CO	SO	TSP	PM-10	Pb	HAPS (Total)	Other (Total)	
IS1	Water or wastewater treatment equipment <100 ppbw each TXS &<3500 ppbw total VOC	Other Equipment											
Total				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000

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

<b>Equip. NJID</b>	<b>Facility's Designation</b>	<b>Equipment Description</b>	<b>Equipment Type</b>	<b>Certificate Number</b>	<b>Install Date</b>	<b>Grand-Fathered</b>	<b>Last Mod. (Since 1968)</b>	<b>Equip. Set ID</b>
E1	Combine Cyc1	Combined Cycle Unit No. 1 SWPC 501F	Combustion Turbine	PCP020001	1/31/2000	No		
E2	Combine Cyc2	Combined Cycle Unit No. 2 SWPC 501F	Combustion Turbine	PCP020001	1/31/2000	No		
E3	Combine Cyc3	Combined Cycle Unit No. 3 SWPC 501F	Combustion Turbine	PCP020001	1/31/2000	No		
E4	CoolingTower	Ten Cell Cooling Tower	Other Equipment	PCP020001	1/31/2000	No		
E5	NH3 Tank	20,000 Gallon Ammonia Storage Tank	Storage Vessel	PCP020001	1/31/2000	No		
E10	Heater	Fuel Gas Heater	Boiler	PCP020001	1/31/2000	No		

18195 RED OAK POWER LLC BOP190001 E2 (Combustion Turbine)  
Print Date: 2/24/2020

Make:	<input type="text" value="Siemens-Westinghouse"/>		
Manufacturer:	<input type="text" value="Siemens-Westinghouse"/>		
Model:	<input type="text" value="501 FD2"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="2,180.00"/>		
Type of Turbine:	<input type="text" value="Industrial"/>		
Type of Cycle:	<input type="text" value="Combined-Cycle"/>	Description:	<input type="text"/>
Industrial Application:	<input type="text" value="Electrical Generator"/>	Description:	<input type="text"/>
Power Output:	<input type="text" value="183.00"/>	Units:	<input type="text" value="Megawatts"/>
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	<input type="text"/>
Water Injection:	<input type="checkbox"/>	Water to Fuel Ratio:	<input type="text"/>
Other:	<input type="checkbox"/>	Description:	<input type="text"/>
Is the turbine Equipped with a Duct Burner?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Comments:	<input type="text" value="Add on Controls: SCR with ammonia injection, oxidation catalyst for CO"/>		

18195 RED OAK POWER LLC BOP190001 E3 (Combustion Turbine)  
Print Date: 2/24/2020

Make:	<input type="text" value="Siemens-Westinghouse"/>		
Manufacturer:	<input type="text" value="Siemens-Westinghouse"/>		
Model:	<input type="text" value="501 FD2"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="2,180.00"/>		
Type of Turbine:	<input type="text" value="Industrial"/>		
Type of Cycle:	<input type="text" value="Combined-Cycle"/>	Description:	<input type="text"/>
Industrial Application:	<input type="text" value="Electrical Generator"/>	Description:	<input type="text"/>
Power Output:	<input type="text" value="183.00"/>	Units:	<input type="text" value="Megawatts"/>
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	<input type="text"/>
Water Injection:	<input type="checkbox"/>	Water to Fuel Ratio:	<input type="text"/>
Other:	<input type="checkbox"/>	Description:	<input type="text"/>
Is the turbine Equipped with a Duct Burner?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Comments:	<input type="text" value="Add on Controls: SCR with ammonia injection, oxidation catalyst for CO"/>		

18195 RED OAK POWER LLC BOP190001 E4 (Other Equipment)  
Print Date: 2/24/2020

Make: Psychrometric Systems, Inc  
Manufacturer: Psychrometric Systems, Inc  
Model: CFD 544 833-10I-33  
Equipment Type: Cooling Tower: Capacity 200000 gallons per minute

Capacity:  
Units:  
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:

18195 RED OAK POWER LLC BOP190001 E1 (Combustion Turbine)  
Print Date: 2/24/2020

Make:	<input type="text" value="Siemens-Westinghouse"/>		
Manufacturer:	<input type="text" value="Siemens-Westinghouse"/>		
Model:	<input type="text" value="501 FD2"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="2,180.00"/>		
Type of Turbine:	<input type="text" value="Industrial"/>		
Type of Cycle:	<input type="text" value="Combined-Cycle"/>	Description:	<input type="text"/>
Industrial Application:	<input type="text" value="Electrical Generator"/>	Description:	<input type="text"/>
Power Output:	<input type="text" value="183.00"/>	Units:	<input type="text" value="Megawatts"/>
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	<input type="text"/>
Water Injection:	<input type="checkbox"/>	Water to Fuel Ratio:	<input type="text"/>
Other:	<input type="checkbox"/>	Description:	<input type="text"/>
Is the turbine Equipped with a Duct Burner?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Comments:	<input type="text" value="Add on Controls: SCR with ammonia injection, oxidation catalyst for CO"/>		

18195 RED OAK POWER LLC BOP190001 E5 (Storage Vessel)  
Print Date: 2/24/2020

What type of contents is this storage vessel equipped to contain by design?

Storage Vessel Type:

Design Capacity:

Units:

Ground Location:

Is the Shell of the Equipment

Exposed to Sunlight?  
Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft<sup>2</sup>)(deg F)]:

Shape of Storage Vessel:

Shell Height (From Ground to Roof Bottom) (ft):

Length (ft):

Width (ft):

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Description (if other):

Maximum Design Fill Rate:

Units:

Does the storage vessel have a roof or an open top?

Roof Type:

Roof Height (From Roof Bottom to Roof Top) (ft):

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel have a Vapor Return Loop?

Does the storage vessel

18195 RED OAK POWER LLC BOP190001 E5 (Storage Vessel)  
Print Date: 2/24/2020

Does the storage vessel  
have a Conservation Vent?

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

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

Comments:

18195 RED OAK POWER LLC BOP190001 E10 (Boiler)  
Print Date: 2/24/2020

Make:

Manufacturer:

Model:

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

Boiler Type:

Utility Type:

Output Type:

Steam Output (lb/hr):

Fuel Firing Method:

Description (if other):

Draft Type:

Heat Exchange Type:

Is the boiler using? (check all that apply):

Low NOx Burner:  Type:

Staged Air Combustion:

Flue Gas Recirculation (FGR):  Amount (%):

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

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

Comments:

New Jersey Department of Environmental Protection  
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1	SCR1	Combined Cycle Unit No. 1 Selective Catalytic Reduction System	Selective Catalytic Reduction	1/31/2000	No		
CD2	OxCat1	Combined Cycle Unit No. 1 Oxidation Catalyst	Oxidizer (Catalytic)	1/31/2000	No		
CD3	SCR2	Combined Cycle Unit No. 2 Selective Catalytic Reduction System	Selective Catalytic Reduction	1/31/2000	No		
CD4	OxCat2	Combined Cycle Unit No. 2 Oxidation Catalyst	Oxidizer (Catalytic)	1/31/2000	No		
CD5	SCR3	Combined Cycle Unit No. 3 Selective Catalytic Reduction System	Selective Catalytic Reduction	1/31/2000	No		
CD6	OxCat3	Combined Cycle Unit No. 3 Oxidation Catalyst	Oxidizer (Catalytic)	1/31/2000	No		

18195 RED OAK POWER LLC BOP190001 CD3 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Make:	Foster Wheeler
Manufacturer:	Foster Wheeler
Model:	
Minimum Temperature at Catalyst Bed (°F):	425
Maximum Temperature at Catalyst Bed (°F):	770
Minimum Temperature at Reagent Injection Point (°F):	425
Maximum Temperature at Reagent Injection Point (°F):	825
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	NH3
Minimum Reagent Charge Rate (gpm):	
Maximum Reagent Charge Rate (gpm):	1.2
Minimum Concentration of Reagent in Solution (% Volume):	19.6
Minimum NOx to Reagent Mole Ratio:	1.28
Maximum NOx to Reagent Mole Ratio:	1.28
Maximum Anticipated Ammonia Slip (ppm):	10
Type of Catalyst:	Trioxide and Vanadium Pentoxide
Volume of Catalyst (ft³):	3192
Form of Catalyst:	Plates
Anticipated Life of Catalyst:	3
Units:	Years
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No

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

Yes  No

18195 RED OAK POWER LLC BOP190001 CD3 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Comments:

18195 RED OAK POWER LLC BOP190001 CD1 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Make:	Foster Wheeler
Manufacturer:	Foster Wheeler
Model:	
Minimum Temperature at Catalyst Bed (°F):	425
Maximum Temperature at Catalyst Bed (°F):	770
Minimum Temperature at Reagent Injection Point (°F):	425
Maximum Temperature at Reagent Injection Point (°F):	825
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	NH3
Minimum Reagent Charge Rate (gpm):	
Maximum Reagent Charge Rate (gpm):	1.2
Minimum Concentration of Reagent in Solution (% Volume):	19.6
Minimum NOx to Reagent Mole Ratio:	1.28
Maximum NOx to Reagent Mole Ratio:	1.28
Maximum Anticipated Ammonia Slip (ppm):	10
Type of Catalyst:	Trioxide and Vanadium Pentoxide
Volume of Catalyst (ft³):	3192
Form of Catalyst:	Plates
Anticipated Life of Catalyst:	3
Units:	Years
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No

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

Yes  No

18195 RED OAK POWER LLC BOP190001 CD1 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Comments:

18195 RED OAK POWER LLC BOP190001 CD4 (Oxidizer (Catalytic))  
Print Date: 2/24/2020

Make:	<input type="text" value="Foster Wheeler"/>
Manufacturer:	<input type="text" value="Foster Wheeler"/>
Model:	<input type="text"/>
Minimum Inlet Temperature (°F):	<input type="text"/>
Maximum Inlet Temperature (°F)	<input type="text"/>
Minimum Outlet Temperature (°F)	<input type="text"/>
Maximum Outlet Temperature (°F):	<input type="text"/>
Minimum Residence Time (sec)	<input type="text"/>
Fuel Type:	<input type="text"/>
Description:	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text"/>
Minimum Pressure Drop Across Catalyst (psi):	<input type="text" value="0.7"/>
Maximum Pressure Drop Across Catalyst (psi):	<input type="text" value="1.1"/>
Catalyst Material:	<input type="text"/>
Form of Catalyst:	<input type="text"/>
Description:	<input type="text"/>
Minimum Expected Life of Catalyst:	<input type="text"/>
Units:	<input type="text"/>
Volume of Catalyst (ft³):	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text" value="1"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	<input type="text"/>

18195 RED OAK POWER LLC BOP190001 CD5 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Make:	Foster Wheeler
Manufacturer:	Foster Wheeler
Model:	
Minimum Temperature at Catalyst Bed (°F):	425
Maximum Temperature at Catalyst Bed (°F):	770
Minimum Temperature at Reagent Injection Point (°F):	425
Maximum Temperature at Reagent Injection Point (°F):	825
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	NH3
Minimum Reagent Charge Rate (gpm):	
Maximum Reagent Charge Rate (gpm):	1.2
Minimum Concentration of Reagent in Solution (% Volume):	19.6
Minimum NOx to Reagent Mole Ratio:	1.28
Maximum NOx to Reagent Mole Ratio:	1.28
Maximum Anticipated Ammonia Slip (ppm):	10
Type of Catalyst:	Trioxide and Vanadium Pentoxide
Volume of Catalyst (ft³):	3192
Form of Catalyst:	Plates
Anticipated Life of Catalyst:	3
Units:	Years
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No

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

Yes  No

18195 RED OAK POWER LLC BOP190001 CD5 (Selective Catalytic Reduction)  
Print Date: 2/24/2020

Comments:

18195 RED OAK POWER LLC BOP190001 CD2 (Oxidizer (Catalytic))  
Print Date: 2/24/2020

Make:	<input type="text" value="Foster Wheeler"/>
Manufacturer:	<input type="text" value="Foster Wheeler"/>
Model:	<input type="text"/>
Minimum Inlet Temperature (°F):	<input type="text"/>
Maximum Inlet Temperature (°F)	<input type="text"/>
Minimum Outlet Temperature (°F)	<input type="text"/>
Maximum Outlet Temperature (°F):	<input type="text"/>
Minimum Residence Time (sec)	<input type="text"/>
Fuel Type:	<input type="text"/>
Description:	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text"/>
Minimum Pressure Drop Across Catalyst (psi):	<input type="text" value="0.7"/>
Maximum Pressure Drop Across Catalyst (psi):	<input type="text" value="1.1"/>
Catalyst Material:	<input type="text"/>
Form of Catalyst:	<input type="text"/>
Description:	<input type="text"/>
Minimum Expected Life of Catalyst:	<input type="text"/>
Units:	<input type="text"/>
Volume of Catalyst (ft³):	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text" value="1"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	<input type="text"/>

18195 RED OAK POWER LLC BOP190001 CD6 (Oxidizer (Catalytic))  
Print Date: 2/24/2020

Make:	<input type="text" value="Foster Wheeler"/>
Manufacturer:	<input type="text" value="Foster Wheeler"/>
Model:	<input type="text"/>
Minimum Inlet Temperature (°F):	<input type="text"/>
Maximum Inlet Temperature (°F)	<input type="text"/>
Minimum Outlet Temperature (°F)	<input type="text"/>
Maximum Outlet Temperature (°F):	<input type="text"/>
Minimum Residence Time (sec)	<input type="text"/>
Fuel Type:	<input type="text"/>
Description:	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text"/>
Minimum Pressure Drop Across Catalyst (psi):	<input type="text" value="0.7"/>
Maximum Pressure Drop Across Catalyst (psi):	<input type="text" value="1.1"/>
Catalyst Material:	<input type="text"/>
Form of Catalyst:	<input type="text"/>
Description:	<input type="text"/>
Minimum Expected Life of Catalyst:	<input type="text"/>
Units:	<input type="text"/>
Volume of Catalyst (ft³):	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text" value="1"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	<input type="text"/>

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	Stack Unit 1	Stack for Combined Cycle Unit 1	Round	228	150	250	225.0	172.0	245.0	1,070,000.0	798,000.0	1,344,000.0	Up	
PT2	Stack Unit 2	Stack for Combined Cycle Unit 2	Round	228	150	250	225.0	172.0	245.0	1,070,000.0	798,000.0	1,344,000.0	Up	
PT3	Stack Unit 3	Stack for Combined Cycle Unit 3	Round	228	150	250	225.0	172.0	245.0	1,070,000.0	798,000.0	1,344,000.0	Up	
PT4	Cooling Towe	Cooling Tower	Round	845	46	50	100.0	32.0	125.0	102,912.0	50,000.0	137,216.9	Up	
PT5	NH3 Tank	Aqueous Ammonia Tank	Round	6	22	250	55.0	0.0	95.0	10.0	0.0	20.0	Up	
PT7	Heater Stack	Stack 1 for Fuel Gas Heater	Round	16	30	200	559.0	300.0	818.0	2,437.3	968.6	3,905.9	Up	
PT8	Heater Stack	Stack 2 for Fuel Gas Heater	Round	16	30	200	559.0	300.0	818.0	2,437.3	968.6	3,905.9	Up	

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

**U 1 Elec Gen Combined Cycle Units - Three turbines each with a heat input of 2180 MMBTU/hr**

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	501F1-Normal	Combined Cycle Unit No. 1 - Normal Operations	Normal - Steady State	E1	CD1 (P) CD2 (P)	PT1	2-01-002-01	0.0	8,760.0					
OS2	501F1-SU	Combined Cycle Unit No. 1 - Startup	Startup	E1		PT1	2-01-002-01	0.0	8,760.0					
OS3	501F1-SD	Combined Cycle Unit No. 1 - Shutdown	Shutdown	E1		PT1	2-01-002-01	0.0	8,760.0					
OS4	501F2-Normal	Combined Cycle Unit No. 2 - Normal Operations	Normal - Steady State	E2	CD3 (P) CD4 (P)	PT2	2-01-002-01	0.0	8,760.0					
OS5	501F2-SU	Combined Cycle Unit No. 2 - Startup	Startup	E2		PT2	2-01-002-01	0.0	8,760.0					
OS6	501F2-SD	Combined Cycle Unit No. 2 - Shutdown	Shutdown	E2		PT2	2-01-002-01	0.0	8,760.0					
OS7	501F3-Normal	Combined Cycle Unit No. 3 - Normal Operations	Normal - Steady State	E3	CD5 (P) CD6 (P)	PT3	2-01-002-01	0.0	8,760.0					
OS8	501F3-SU	Combined Cycle Unit No. 3 - Startup	Startup	E3		PT3	2-01-002-01	0.0	8,760.0					
OS9	501F3-SD	Combined Cycle Unit No. 3 - Shutdown	Shutdown	E3		PT3	2-01-002-01	0.0	8,760.0					

**RED OAK POWER LLC (18195)**  
**BOP190001**

Date: 12/29/2020

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

**U 2 CoolingTower Ten Cell Cooling Tower (200,000 gal/min capacity)**

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	Cool Tower	Ten Cell Cooling Tower - Normal Operation	Normal - Steady State	E4		PT4	3-02-999-98	0.0	8,760.0					

**U 3 NH3 Tank 20,000 Gallon Ammonia Storage Tank**

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	NH3 Tank	20,000 Gallon Ammonia Storage Tank - Normal Operations	Normal - Steady State	E5		PT3	4-03-011-97	0.0	8,760.0					

**RED OAK POWER LLC (18195)**  
**BOP190001**

Date: 12/29/2020

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

**U 7 Heater Fuel Gas Heater (16 MMBTU/hr)**

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	Heater-Gas	Fuel Gas Heater Normal	Normal - Steady State	E10		PT7 PT8		0.0	8,760.0		968.0	3,905.9	300.0	818.0

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

**Group NJID:** GR1 RGGI

**Members:**

Type	ID	OS	Step
E	E 1		
E	E 2		
E	E 3		
U	U 1	OS1 501F1-Normal	
U	U 1	OS4 501F2-Normal	
U	U 1	OS7 501F3-Normal	

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

Other

**Other (explain):** RGGI Requirements for Combustion Turbines

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

**Operating Circumstances:**



## State of New Jersey

Department of Environmental Protection

Air Quality, Energy and Sustainability

Division of Air Quality

Bureau of Stationary Sources

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

02

Trenton, NJ 08625-0420

PHILIP D. MURPHY

*Governor*

CATHERINE R. McCABE

*Commissioner*

SHEILA Y. OLIVER

*Lt. Governor*

### DRAFT

#### PHASE II ACID RAIN PERMIT

**Issued to:** Issued to: Red Oak Power Facility  
832 Red Oak Lane  
Sayreville, NJ 08872

**Owned by:** Red Oak Power LLC  
832 Red Oak Lane  
Sayreville, NJ 08872

**Operated by:** Red Oak Power LLC.  
832 Red Oak Lane  
Sayreville, NJ 08872

**ORIS Code:** 55239

**Effective:** Coincides with Operating permit dates (expires July 27, 2025)

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

Approved by:

---

David J. Owen

Supervisor, Bureau of Air Permits

## **ACID RAIN PERMIT CONTENTS**

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

**1) Statement of Basis**

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

**2) Unit Specific Requirements**

Refer to 40 CFR 72 for specific requirements.

**3) Comments, Notes, And Justifications Regarding Permit Decisions**

This facility is subject to the Operating Permit regulations promulgated at N.J.A.C. 7:27-22. Therefore, the facility must obtain an Operating Permit. The Department is currently reviewing the Operating Permit application filed by the applicant, and expects to issue a permit decision on their application in the near future. The procedures for incorporating this Acid Rain permit into the Operating Permit shall be consistent with the state requirements at N.J.A.C. 7:27-22.29, the federal requirements at 40 CFR 72, and any official guidance issued by USEPA.

**4) Phase II Permit Application**

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



**STEP 3**

**Read the standard requirements.**

**Permit Requirements**

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

**Monitoring Requirements**

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

**Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

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

**STEP 3, Cont'd.**

**Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

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

Red Oak Power, LLC  
Facility (Source) Name (from STEP 1)

**STEP 3, Cont'd.**

**Effect on Other Authorities**

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

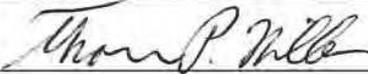
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**

**Certification**

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

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

Name Thomas P. Miller	
Signature 	Date 4-1-2019



## Instructions for the Acid Rain Program Permit Application

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

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

- STEP 1** A Plant Code is a 4 or 5 digit number assigned by the Department of Energy's (DOE) Energy Information Administration (EIA) to facilities that generate electricity. For older facilities, "Plant Code" is synonymous with "ORISPL" and "Facility" codes. If the facility generates electricity but no Plant Code has been assigned, or if there is uncertainty regarding what the Plant Code is, send an email to the EIA. The email address is [EIA-860@eia.gov](mailto:EIA-860@eia.gov).
- STEP 2** In column "a," identify each unit at the facility by providing the appropriate unit identification number, consistent with the identifiers used in the Certificate of Representation and with submissions made to DOE and/or EIA. Do not list duct burners. For new units without identification numbers, owners and operators must assign identifiers consistent with EIA and DOE requirements. Each Acid Rain Program submission that includes the unit identification number(s) (e.g., Acid Rain permit applications, monitoring plans, quarterly reports, etc.) should reference those unit identification numbers in exactly the same way that they are referenced on the Certificate of Representation.

### Submission Deadlines

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

### Submission Instructions

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

### Paperwork Burden Estimate

The public reporting and record keeping burden for this collection of information is estimated to average 8 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, D.C. 20460. Include the OMB control number in any correspondence. **Do not send the completed form to this address.**

## **ATTACHMENT**

**Cross-State Air Pollution Rule (CSAPR) for the CSAPR NO<sub>x</sub> Annual Trading Program requirements, CSAPR NO<sub>x</sub> Ozone Season Trading Program, and CSAPR SO<sub>2</sub> Trading Program**

## **Transport Rule (TR) Trading Program Title V Requirements**

### **TR NO<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO<sub>x</sub> 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<sub>x</sub> emissions requirements.**

- (1) TR NO<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> 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<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Annual units at the source.
  - (ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Annual units at a TR NO<sub>x</sub> Annual source are in excess of the TR NO<sub>x</sub> Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
    - (A). The owners and operators of the source and each TR NO<sub>x</sub> Annual unit at the source shall hold the TR NO<sub>x</sub> Annual allowances required for deduction under 40 CFR 97.424(d); and
    - (B). The owners and operators of the source and each TR NO<sub>x</sub> 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<sub>x</sub> Annual assurance provisions.

- (i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state for such control period exceed the state assurance level.
- (ii). The owners and operators shall hold the TR NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> emissions from the TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.
  - (ii). A TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Annual source and each TR NO<sub>x</sub> 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<sub>x</sub> 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 AAAAAA.
  - (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<sub>x</sub> Annual Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the TR NO<sub>x</sub> 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<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual source or the designated representative of a TR NO<sub>x</sub> Annual source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Annual units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Annual Trading Program that applies to a TR NO<sub>x</sub> Annual unit or the designated representative of a TR NO<sub>x</sub> Annual unit shall also apply to the owners and operators of such unit.

**(g) Effect on other authorities.**

No provision of the TR NO<sub>x</sub> 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<sub>x</sub> Annual source or TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO<sub>x</sub> 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<sub>x</sub> emissions requirements.**

- (1) TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> 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<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Ozone Season units at the source.
  - (ii). If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Ozone Season units at a TR NO<sub>x</sub> Ozone Season source are in excess of the TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season unit at the source shall hold the TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBB and the Clean Air Act.
- (2) TR NO<sub>x</sub> Ozone Season assurance provisions.
  - (i). If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and
  - (B). The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b).
  - (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> 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<sub>x</sub> emissions from the TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.
- (3) Compliance periods.
- (i). A TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Ozone Season allowance that was allocated for such control period or a control period in a prior year.
  - (ii). A TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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 BBBBBB.
- (6) Limited authorization. A TR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program; and
  - (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBBB, 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<sub>x</sub> 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<sub>x</sub> Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBBB.
- (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<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> 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<sub>x</sub> 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 BBBBBB.
  - (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<sub>x</sub> Ozone Season Trading Program.
- (2) The designated representative of a TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall make all submissions required under the TR NO<sub>x</sub> 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<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.
- (2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Ozone Season source or TR NO<sub>x</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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<sub>2</sub> Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO<sub>2</sub> 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<sub>2</sub> emissions requirements.**

- (1) TR SO<sub>2</sub> 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<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, TR SO<sub>2</sub> 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<sub>2</sub> emissions for such control period from all TR SO<sub>2</sub> Group 1 units at the source.
  - (ii). If total SO<sub>2</sub> emissions during a control period in a given year from the TR SO<sub>2</sub> Group 1 units at a TR SO<sub>2</sub> Group 1 source are in excess of the TR SO<sub>2</sub> 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<sub>2</sub> Group 1 unit at the source shall hold the TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 assurance provisions.
  - (i). If total SO<sub>2</sub> emissions during a control period in a given year from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and
  - (B). The amount by which total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO<sub>2</sub> emissions exceed the sum, for such control period, of the state SO<sub>2</sub> 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<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> emissions from the TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
  - (ii). A TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 Trading Program.
- (2) The designated representative of a TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall make all submissions required under the TR SO<sub>2</sub> 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<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 source or the designated representative of a TR SO<sub>2</sub> Group 1 source shall also apply to the owners and operators of such source and of the TR SO<sub>2</sub> Group 1 units at the source.
- (2) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 unit or the designated representative of a TR SO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> Group 1 source or TR SO<sub>2</sub> 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.