



## State of New Jersey

PHILIP D. MURPHY  
Governor

TAHESHA L. WAY  
Lt. Governor

### DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

SHAWN M. LATOURETTE  
Commissioner

### Air Pollution Control Operating Permit Renewal with Significant Modification

**Permit Activity Number: BOP190002**

**Program Interest Number: 75507**

Mailing Address	Plant Location
JOHN LILLIE DIRECTOR, VINELAND MUNICIPAL UTILITIES VINELAND CITY MUNICIPAL ELECTRIC UTILITY PO BOX 1508 Vineland, NJ 08362-1508	VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN 211 N West Ave Vineland Cumberland County

**Initial Operating Permit Approval Date: August 31, 2005**

**Operating Permit Approval Date: Draft**

**Operating Permit Expiration Date: TBD**

#### **AUTHORITY AND APPLICABILITY**

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

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

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

#### **PERMIT SHIELD**

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

#### **COMPLIANCE SCHEDULES**

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

#### **COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS**

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

### **ACCESSING PERMITS**

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

### **HELPLINE**

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

### **RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD**

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

### **COMPLIANCE ASSURANCE MONITORING**

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

### **ADMINISTRATIVE HEARING REQUEST**

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

If you have any questions regarding this permit approval, please call Shafi Ahmed at (609) 940-5652.

Approved by:

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Joel Leon

Enclosure

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

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**  
**Program Interest Number: 75507**  
**Permit Activity Number: BOP190002**

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## Section A

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**

**Program Interest Number: 75507**

**Permit Activity Number: BOP190002**

### **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	9.48	27.56	31.07	3.78	26.7	26.7	26.7	0.004	9.45	
Batch Process Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Group Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total Emissions	9.48	27.56	31.07	3.78	26.7	26.7	26.7	0.004	9.45	313,223

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	0.352	2.04	1.68	0.14	0.04	0.16	0.16	0	0.002
Non-Source Fugitive Emissions	2.96	NA	NA	NA	0.13	0.04	0.004	NA	0.05

VOC: Volatile Organic Compounds

NO<sub>x</sub>: Nitrogen Oxides

CO: Carbon Monoxide

SO<sub>2</sub>: Sulfur Dioxide

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).

TSP: Total Suspended Particulates

Other: Any other air contaminant regulated under the Federal CAA

PM<sub>10</sub>: Particulates under 10 microns

PM<sub>2.5</sub>: Particulates under 2.5 microns

Pb: Lead

HAPs: Hazardous Air Pollutants

CO<sub>2</sub>e: Carbon Dioxide equivalent

\*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.

## Section A

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**

**Program Interest Number: 75507**

**Permit Activity Number: BOP190002**

### **POLLUTANT EMISSIONS SUMMARY**

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

HAP	TPY
Acetaldehyde	1.356
Acetophenone	0.14
Acenaphthene	0.0077
Acrolein	0.184
Arsenic	0.002
Benzene	1.045
Benzo(b)fluoranthene	0.00213
Benzo (A) Pyrene	0.000265
Biphenyl	0.0267
Beryllium	0.00053
Butadiene (1,3-)	0.00118
Cadmium	0.0197
Chromium Compounds	0.586
Chromium (Hexavalent)	0.00454
Cobalt	0.00467
Dioxins/Furans (TEQ)	0.00000211
Ethylbenzene	0.154
Formaldehyde	2.017
Fluorene	0.00124
Hexane (n-)	1.015
Indeno(1,2,3-cd)pyrene	0.00036
Lead	0.0078
Manganese	0.83
Methylnaphthalene (2-)	0.0143
Mercury	0.0223
Nickel	0.17
Naphthalene	0.0503
Phenanthrene	0.00824
Polycyclic organic matter	0.102
Propylene Oxide	0.212
Pyrene	0.00162
Styrene	0.162
Toluene	1.36

<sup>3</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.

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

Other Air Contaminant	TPY
N/A	

## Section B

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**

**Program Interest Number: 75507**

**Permit Activity Number: BOP190002**

### **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)1]
3. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any non-compliance with a permit condition constitutes a violation of the New Jersey Air Pollution Control Act N.J.S.A. 26:2C-1 et seq., or the CAA, 42 U.S.C. §7401 et seq., or both, and is grounds for enforcement action; for termination, revocation and reissuance, or for modification of the operating permit; or for denial of an application for a renewal of the operating permit. [N.J.A.C. 7:27-22.16(g)1]
4. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of its operating permit. [N.J.A.C. 7:27-22.16(g)2]
5. This operating permit may be modified, terminated, or revoked for cause by the EPA pursuant to 40 CFR 70.7(g) and revoked or reopened and modified for cause by the Department pursuant to N.J.A.C. 7:27-22.25. [N.J.A.C. 7:27-22.16(g)3]

6. The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this operating permit; or to determine compliance with the operating permit. [N.J.A.C. 7:27-22.16(g)4]
7. The filing of an application for a modification of an operating permit, or of a notice of planned changes or anticipated non-compliance, does not stay any operating permit condition. [N.J.A.C. 7:27-22.16(g)5]
8. The operating permit does not convey any property rights of any sort, or any exclusive privilege. [N.J.A.C. 7:27-22.16(g)6]
9. Upon request, the permittee shall furnish to the Department copies of records required by the operating permit to be kept. [N.J.A.C. 7:27-22.16(g)7]
10.
  - a. For emergencies (as defined at 40 CFR 70.6(g)(1)) that result in non-compliance with any promulgated federal technology-based standard such as NSPS, NESHAPS, or MACT, a federal affirmative defense is available, pursuant to 40 CFR 70. To assert a federal affirmative defense, the permittee must use the procedures set forth in 40 CFR 70. The affirmative defense provisions described below may not be applied to any situation that caused the Facility to exceed any federally delegated regulation, including but not limited to NSPS, NESHAP, or MACT.
  - b. For situations other than those covered above, an affirmative defense is available for a violation of a provision or condition of the operating permit only if:
    - i. The violation occurred as a result of an equipment malfunction, an equipment startup or shutdown, or during the performance of necessary equipment maintenance; and
    - ii. The affirmative defense is asserted and established as required by N.J.S.A. 26:2C-19.1 through 19.5 and any implementing rules. [N.J.A.C. 7:27-22.16(l)]
11. In the event of a challenge to any part of this operating permit, all other parts of the permit shall continue to be valid. [N.J.A.C. 7:27-22.16(f)]
12. Each owner and each operator of any facility, source operation, or activity to which this permit applies is responsible for ensuring compliance with all requirements of N.J.A.C. 7:27-22. If the owner and operator are separate persons, or if there is more than one owner or operator, each owner and each operator is jointly and severally liable for any fees due under N.J.A.C. 7:27-22, and for any penalties for violation of N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.3]
13. The permittee shall ensure that no air contaminant is emitted from any significant source operation at a rate, calculated as the potential to emit, that exceeds the applicable threshold for reporting emissions set forth in the Appendix to N.J.A.C. 7:27-22 or 7:27-17.9(a), unless emission of the air contaminant is authorized by this operating permit. [N.J.A.C. 7:27-22.3(c)]
14. Consistent with the provisions of N.J.A.C. 7:27-22.3(e), the permittee shall ensure that all requirements of this operating permit are met. In the event that there are multiple emission limitations, monitoring, recordkeeping, and/or reporting requirements for a given source operation, the facility must comply with all requirements, including the most stringent.
15. Consistent with the provisions of N.J.A.C. 7:27-22.3(s), Except as otherwise provided in this subchapter, the submittal of any information or application by a permittee including, but not limited to, an application or notice for any change to the operating permit, including any administrative amendment, any minor or significant modification, renewal, a notice of a seven-day notice change, a notice of past or anticipated noncompliance, does not stay any operating permit condition, nor relieve a permittee from the obligation to obtain other necessary permits and to comply with all applicable Federal, State, and local requirements.



16. Applicable requirements derived from an existing or terminated consent decree with EPA will not be changed without advance consultation by the Department with EPA. N.J.A.C. 7:27-22.3(uu).
17. Unless specifically exempted from permitting, temporary mobile equipment for short-term activities may be periodically used at major facilities, on site for up to 90 days if the requirements listed below, (a) through (h) are satisfied.
  - a. The permittee will ensure that the temporary mobile equipment will not be installed permanently or used permanently on site.
  - b. The permittee will ensure that the temporary mobile equipment will not circumvent any State or Federal rules and regulations, even for a short period of time, and the subject equipment will comply with all applicable performance standards.
  - c. The permittee cannot use temporary mobile equipment unless the owner or operator of the subject equipment has obtained and maintains an approved Air Pollution Control Permit, issued pursuant to N.J.A.C. 7:27-8 or 22, prior to bringing the temporary mobile equipment to operate at the major facility.
  - d. The permittee is responsible for ensuring the temporary mobile equipment's compliance with the terms and conditions specified in its approved Air Pollution Control Permit when the temporary mobile equipment operates on the property of the permittee.
  - e. The permittee will ensure that temporary mobile equipment utilized for short-term activities will not operate on site for more than a total of 90 days during any calendar year.
  - f. The permittee will keep on site a list of temporary mobile equipment being used at the facility with the start date, end date, and record of the emissions from all such equipment (amount and type of each air contaminant) no later than 30 days after the temporary mobile equipment completed its job in accordance with N.J.A.C. 7:27-22.19(i)3.
  - g. Emissions from the temporary mobile equipment must be included in the emission netting analysis required of the permittee by N.J.A.C. 7:27-18.7. This information is maintained on site by the permittee and provided to the Department upon request in accordance with existing applicable requirements in the FC Section of its Title V permit.
  - h. Where short-term activities (employing temporary mobile equipment) will reoccur on at least an annual basis, the permittee is required to include such activities (and the associated equipment) within one year of the first use, in its Title V permit through the appropriate modification procedures.
18. Consistent with the provisions of N.J.A.C. 7:27-22.9(c), the permittee shall use monitoring of operating parameters, where required by the compliance plan, as a surrogate for direct emissions testing or monitoring, to demonstrate compliance with applicable requirements.
19. The permittee is responsible for submitting timely and administratively complete operating permit applications:

Administrative Amendments [N.J.A.C. 7:27-22.20(c)];  
Seven-Day Notice changes [N.J.A.C. 7:27-22.22(e)];  
Minor Modifications [N.J.A.C. 7:27-22.23(e)];  
Significant Modifications [N.J.A.C. 7:27-22.24(e)]; and  
Renewals [N.J.A.C. 7:27-22.30(b)].
20. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website <https://dep.nj.gov/boss/applications-and-forms/> (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal

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

21. For all source emissions testing performed at the facility, the phrase “worst case conditions without creating an unsafe condition” used in the enclosed compliance plan is consistent with EPA’s National Stack Testing Guidance, dated April 27, 2009, where all source emission testing performed at the facility shall be under the representative (normal) conditions that:
  - i. Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and
  - ii. Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.
22. Consistent with EPA’s National Stack Testing Guidance and Technical Manual 1004, a facility may not stop an ongoing stack test because it would have failed the test unless the facility also ceases operation of the equipment in question to correct the issue. Stopping an ongoing stack test in these instances will be considered credible evidence of emissions non-compliance.
23. Each permittee shall maintain records of all source emissions testing or monitoring performed at the facility and required by the operating permit in accordance with N.J.A.C. 7:27-22.19. Records shall be maintained, for at least five years from the date of each sample, measurement, or report. Each permittee shall maintain all other records required by this operating permit for a period of five years from the date each record is made. At a minimum, source emission testing or monitoring records shall contain the information specified at N.J.A.C. 7:27-22.19(b). [N.J.A.C. 7:27-22.19(a) and N.J.A.C. 7:27-22.19(b)]
24. A Permittee may seek the approval of the Department for a delay in testing required pursuant to this permit by submitting a written request to the appropriate Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.18(k). A Permittee may also seek advanced approval for a longer period for submittal of a source emissions test report required by the permit by submitting a request to the Department’s Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.18(k) and N.J.A.C. 7:27-22.19]
25. Any emission limit values in an operating permit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to three significant figures (e.g. a printed limit of “1 lb/hr” means a limit of “1.00 lb/hr”) except for concentration limits less than 10 parts per million (ppm). For such concentration limits, the emission limit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to two significant figures (e.g. a printed limit of “1 ppm” means a limit of “1.0 ppm”).

## Section C

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**

**Program Interest Number: 75507**

**Permit Activity Number: BOP190002**

### **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>
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## Section D

**Facility Name: VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN**

**Program Interest Number: 75507**

**Permit Activity Number: BOP190002**

### **FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES**

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

**Permit Being Modified**

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

**Description of Modifications:** The last renewal for this facility (BOP140002) was issued on August 31, 2015. The following permit actions have been approved since issuance of that renewal:

BOP160003 (01/05/17) - PCP approval of extended renewal testing deadline for VMEU Unit 11 to June 29, 2017

BOP170002 (07/07/17) - BOP approval of extended renewal testing deadline for VMEU Unit 11 to June 29, 2017

BOP170003 (04/26/18) - Changed Unit 11 ULSD testing requirement to within 180 days of next oil use.

Although several 7-day notices covering temporary equipment changes have been filed since the last permit renewal, no further permanent changes have occurred since the approval of BOP170003 (current permit), and no changes are anticipated for this renewal.

This renewal application is being submitted electronically through the NJDEP online portal. Forms and information required to be filed along with this RADIUS file will be attached to the online submittal.

BOP190002

**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.

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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.

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

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

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**New Jersey Department of Environmental Protection  
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**Subject Item:** IS1 small heaters (<1MMBtu/hr) - Small space heaters

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary internal combustion engines shall not exceed 20% opacity, exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	Other: Periodic visual inspections.[N.J.A.C. 7:27- 3.5].	None.	None.
2	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.

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Subject Item: IS6 Parts cleaners

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total): Solvent cleaning machine shall have an open top less than six square feet or have a capacity less than 100 gallons. [N.J.A.C. 7:27-22.1]	Other: At the time of filling, confirm by MSDS or bill of lading.[40 CFR 63].	None.	None.

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## New Jersey Department of Environmental Protection Facility Specific Requirements

Subject Item: GR1 Unit 11 Turbine

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

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

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

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

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

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	<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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**Subject Item: GR2 PACT Rule Permit Conditions**

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



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

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>Electrical Output: The owner or operator shall use the compliance demonstration procedures at 40 CFR 60.5540 that pertain to EGUs with an output - based emission limit for CO<sub>2</sub>.</p> <p>Pursuant to 40 CFR 60.5535 (d), the owner or operator must install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output. These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20. [N.J.A.C. 7:27F-2.6(c)]</p>	<p>Other: Monitored by watt meter continuously (See Applicable Requirement).</p> <p>Consistent with 40 CFR 60.5535(e) and 40 CFR 60.5520, if two or more affected EGUs serve a common electric generator, the owner or operator must apportion the combined hourly gross or net energy output to the individual affected EGUs according to the fraction of the total steam load contributed by each EGU. Alternatively, if the EGUs are identical, the owner or operator may apportion the combined hourly gross or net electric load to the individual EGUs according to the fraction of the total heat input contributed by each EGU.[N.J.A.C. 7:27F-2.6(c)].</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator must comply with the recordkeeping requirements at 40 CFR 60.5560 that pertain to EGUs with an output -based emission limit for CO<sub>2</sub> by maintaining records of the information used to demonstrate compliance as specified in 40 CFR 60.7(b) and (f) and 40 CFR 60.5560, in a form suitable and readily available for expeditious review. [N.J.A.C. 7:27F-2.6(d)]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<p>Emergency Use of Fuel Oil During Natural Gas Curtailment:</p> <p>If a fossil fuel-fired electric generating unit, subject to 7:27F-2, temporarily combusts fuel oil or other liquid fuel in place of natural gas, pursuant to a natural gas curtailment period (as defined at N.J.A.C. 7:27F-2.1), the CO<sub>2</sub> emissions from that EGU during the period of curtailment shall not be included in the 12-operating-month rolling average used to determine compliance with the emission limits of this subchapter, so long as:</p> <ol style="list-style-type: none"> <li>1. The EGU's permit authorizes fuel switching pursuant to N.J.A.C. 7:27-19;</li> <li>2. The owner or operator is not practicably able to obtain a sufficient supply of natural gas;</li> <li>3. The owner or operator's inability to obtain natural gas is due to circumstances beyond the control of the owner or operator, such as a natural gas curtailment;</li> <li>4. The EGU ceases using fuel oil or other liquid fuel in place of natural gas and resumes using natural gas as soon as a sufficient supply of natural gas becomes practicably available; and</li> <li>5. The owner or operator keeps records of curtailment periods and incorporates such records into the reports submitted to the Department as required by N.J.A.C. 7:27-22. [N.J.A.C. 7:27F-2.3(c)]</li> </ol>	<p>Other: Monitor the date and time of any natural gas curtailment during which the EGU combusted fuel oil or other liquid fuel in place of natural gas.[N.J.A.C. 7:27F-2.3(c)].</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. For each period of natural gas curtailment, during which the EGU combusted fuel oil or other liquid fuel in place of natural gas, the permittee shall maintain a record that includes the following information:</p> <ol style="list-style-type: none"> <li>i. Information sufficient to identify each EGU for which the owner or operator claims an exemption under this section, including a brief description of the source (for example, "dry-bottom coal-fired boiler serving an electric generating unit"), its location, its permit number, any other identifying numbers, and any other information necessary to distinguish it from other equipment also owned or operated by the owner or operator of the electric generating unit;</li> <li>ii. A statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas;</li> <li>iii. The date and time at which the owner or operator first became practicably unable to obtain natural gas; and</li> <li>iv. A description of the circumstances causing the owner's or operator's inability to obtain natural gas. [N.J.A.C. 7:27F-2.3(c)5]</li> </ol>	None.

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Emission Unit: U1 Large fuel oil storage tanks

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.13 tons/yr. Limit on emissions from tank #2 based on tanks 4.0 analysis submitted with BOP090003 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Emission Unit: U1 Large fuel oil storage tanks

Operating Scenario: OS4 Tank No. 2 (675,000 gallons) storing ultra-low sulfur distillate fuel oil

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	On and after the date that emission unit U11(Trent 60 turbine) commences operation, this operating scenario shall be the only operating scenario available for tank No. 2.  Tank No. 2 shall be thoroughly cleaned prior to initially filling with ULSD to remove all traces of higher sulfur fuel oil. [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 and maintain invoice for tank cleaning when performed. [N.J.A.C. 7:27-22.16(o)]	None.
2	Sulfur Content in Fuel <= 0.3 % by weight. Maximum allowable sulfur content in No. 2 fuel oil by fuel oil type/viscosity and geographical zone. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. Sulfur content must be indicated on delivery records. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading per delivery. Keep certificate of analysis showing fuel sulfur content. [N.J.A.C. 7:27- 9.2(a)]	None.
3	Sulfur Content in Fuel <= 0.0015 % by weight. Maximum allowable sulfur content in ULSD. [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. Sulfur content must be indicated on delivery records. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading per delivery. Keep certificate of analysis showing fuel sulfur content. [N.J.A.C. 7:27- 9.2(a)]	None.
4	Tank contents limited to Ultra Low Sulfur Distillate Fuel (ULSD). [N.J.A.C. 7:27-22.16(a)]	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
5	Fuel Oil Usage <= 6.1 MMgal/yr. Annual throughput limit from permit application. This is a combined limit for operating scenarios OS3 and OS4. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Fuel Oil Usage: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. Maintain record of total fuel delivered by date. [N.J.A.C. 7:27-22.16(o)]	None.

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Emission Unit: U2 No.6 and No.2 fuel oil storage day tanks

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.068 tons/yr. Limit on emissions from three storage tanks. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Emission Unit: U2 No.6 and No.2 fuel oil storage day tanks

Operating Scenario: OS1 20,000 gallons No. 6 fuel oil tank, OS2 20,000 gallons No. 6 fuel oil tank

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 2 % by weight. Maximum allowable sulfur content in No. 6 fuel oil by fuel oil type/viscosity and geographical zone. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. Sulfur content must be indicated on the delivery record. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading per delivery. Keep certificate of analysis showing fuel sulfur content. [N.J.A.C. 7:27- 9.2(a)]	None.
2	Sulfur Content in Fuel <= 0.7 % by weight. Maximum allowable sulfur content in No. 6 fuel oil based on permit application. [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) annually. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results annually. [N.J.A.C. 7:27-22.16(o)]	None.
3	Tank content limited to No. 6 fuel oil. [N.J.A.C. 7:27-22.16(e)]	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
4	Fuel Oil Usage <= 61 MMgal/yr. Annual throughput limit from permit application. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Fuel Oil Usage: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. Maintain record of total fuel delivered by date. [N.J.A.C. 7:27-22.16(o)]	None.

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**New Jersey Department of Environmental Protection**  
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**Emission Unit:** U2 No.6 and No.2 fuel oil storage day tanks

**Operating Scenario:** OS3 20,000 gallons No. 2 fuel oil tank

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 0.3 % by weight. Maximum allowable sulfur content in No. 2 fuel oil by fuel oil type/viscosity and geographical zone. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. Sulfur content must be indicated on the delivery records. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading per delivery. Keep certificate of analysis showing fuel sulfur content. [N.J.A.C. 7:27- 9.2(a)]	None.
2	Tank content limited to No. 2 fuel oil. [N.J.A.C. 7:27-22.16(e)]	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
3	Fuel Oil Usage <= 6.1 MMgal/yr. Annual throughput limit from permit application. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Fuel Oil Usage: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. Maintain record of total fuel delivered by date. [N.J.A.C. 7:27-22.16(o)]	None.



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Emission Unit: U11 Gas Turbine - Unit 11

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 52.21: PSD 40 CFR 60 Subpart A 40 CFR 60 Subpart KKKK 40 CFR 97 Acid Rain. [40 CFR Federal Rules Summary]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p><b>INITIAL STACK TESTING REQUIREMENT FOR ULSD:</b> Conduct a comprehensive stack test at PT11 no later than 180 days after the first firing of ULSD by the turbine, after June 1, 2012. Testing shall demonstrate compliance with the NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, TSP, PM<sub>2.5</sub>, PM<sub>10</sub>, Ammonia and opacity emission limits while combusting ultra low sulfur distillate oil (ULSD). Three stack tests shall be conducted at worst-case permitted operating conditions achievable under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for that day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS all data necessary to substantiate the ambient maximum conditions. The testing shall be conducted in accordance with the protocol approved by EMS.</p> <p>The permittee shall provide EMS with the turbine load performance curve with the protocol.</p> <p>The initial performance test for compliance with NO<sub>x</sub> emission limits, as per NSPS KKKK, must be done at any load condition within plus or minus 25% of 100% of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved. [40CFR60.4400]</p> <p><b>THIS STACK TEST IS SUBJECT TO THE SIGNIFICANT MODIFICATION SUPPLEMENTAL FEES PURSUANT TO NJAC 7:27-22.31. [N.J.A.C. 7:27-22.16(a)]</b></p>	<p>Monitored by stack emission testing once initially. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, TSP, PM<sub>2.5</sub>, PM<sub>10</sub>, ammonia and opacity emissions, while combusting ultra low sulfur distillate oil.</p> <p>In accordance with N.J.A.C. 7:27-19.15(a)2, any NO<sub>x</sub> testing conducted pursuant to this section shall be conducted concurrently with CO testing. The applicable NO<sub>x</sub> emission limits in N.J.A.C. 7:27-19 will not be considered to have been met unless the concurrent CO testing demonstrates compliance with the CO limit in N.J.A.C. 7:27-16.9 or the permit limit for CO, whichever is more stringent, is also met. [N.J.A.C. 7:27-22.16(o)]</p>	Recordkeeping by stack test results once initially. [N.J.A.C. 7:27-22.16(o)]	<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 within 60 days from the date of the approved initial (or modified) operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: <a href="http://www.epa.gov/ttnchie1/ert">http://www.epa.gov/ttnchie1/ert</a>. Within 30 days of protocol approval, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. The stack test must be conducted no later than 180 days after the first firing of ULSD by the turbine, after June 1, 2012.</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.</p> <p>A copy of the certified summary test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit.</p> <p>Test results shall be reported in lb/hr, lb/MMBTU (HHV) and ppm<sub>dv</sub> @ 15% oxygen. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]</p>

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3	<p><b>RENEWAL STACK TESTING REQUIREMENT:</b></p> <p>Renewal stack testing shall be performed once during each permit term during which the turbine does not qualify as a "peaking unit" as defined by the Acid Rain program of USEPA, under 40 CFR 75. If the average capacity factor of the unit exceeds 10% over the previous 3 calendar years or the annual capacity factor in any of those calendar years exceeds 20%, the permittee shall:</p> <p>1) Within 6 months of the capacity factor exceedance, submit a stack test protocol to the Department,</p> <p>2) By June 29, 2017, conduct a comprehensive stack test at PT11 to demonstrate compliance with NOx, CO, PM-2.5, and PM-10 emission limits while combusting natural gas.</p> <p>3) Within 180 days of the first time oil is fired in the turbine after July, 2015, conduct a comprehensive stack test at PT11 to demonstrate compliance with NOx, CO, VOC, TSP, PM-2.5 and PM-10 emission limits while combusting ULSD.</p> <p>Three tests shall be conducted at worst case permitted operating conditions achievable under the corresponding test conditions, such as ambient (relative humidity and temperature) conditions for that day, with regard to meeting the applicable emission standards, but without creating an unsafe condition. The permittee shall submit to EMS all data necessary to substantiate the ambient conditions. The testing shall be conducted in accordance with the protocol approved by EMS. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by stack emission testing at the approved frequency. Unless otherwise approved in the stack test protocol or by the Department, each test run shall be 60 minutes in sampling duration. Compliance period shall be as specified in the monitoring requirement for each applicable emission limit. Stack tests shall be conducted for NOx, CO, PM-2.5, PM-10 and Ammonia emissions (when combusting natural gas) and for NOx, CO, VOC, TSP, PM-2.5, PM-10, and Ammonia emissions (when combusting ULSD).</p> <p>In accordance with N.J.A.C. 7:27-19.15(a)2, any NOx testing conducted pursuant to this section shall be conducted concurrently with CO testing. The applicable NOx emission limits in N.J.A.C. 7:27-19 will not be considered to have been met unless the concurrent CO testing demonstrates compliance with the CO limit in N.J.A.C. 7:27-16.9 or the permit limit for CO, whichever is more stringent, is also met. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by stack test results upon occurrence of event. [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 within 6 months of a capacity factor exceedance. 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, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist.</p> <p>A copy of the certified summary test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit.</p> <p>Test results shall be reported in lb/hr, lb/MMBTU (HHV) and ppm<sub>dv</sub> @ 15% oxygen. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]</p>

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4	<p>Continuous Emission Monitoring System for NO<sub>x</sub>, CO and O<sub>2</sub>:</p> <p>Continuously monitor NO<sub>x</sub>, CO and O<sub>2</sub> emitted from emission point PT11, using a Continuous Emission Monitoring (CEM) system that complies with USEPA performance and siting specifications (40 CFR Part 60, Appendix B. Continuous monitors and recorders shall be operated, calibrated, and maintained. Emissions shall be monitored during all operation of the turbine whether combusting natural gas or ultra low sulfur distillate. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]</p>	<p>CEMS/COMS - Submit equipment protocol, submit a PST protocol, conduct PST and submit results: As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]</p>

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5	<p>Periodic Emission Monitoring Alternative Requirement for Peaking Units:</p> <p>If the turbine is operated as a "Peaking Unit" as defined by the Acid Rain program of USEPA, under 40 CFR 75 (the average capacity factor of the unit does not exceed 10% over the previous 3 calendar years and annual capacity factor does not exceed 20% in each of those calendar years), periodic emission monitoring of NOx and CO shall be permitted in lieu of the renewal stack test requirements.</p> <p>Periodic emission testing shall be performed annually on the turbine using a periodic emission monitoring device to measure the concentrations of NOx, CO and O2, in accordance with Technical Manual 1005, unless the unit qualifies for the exemption listed below. The testing shall be done in accordance with the protocol approved by EMS.</p> <p>Exemption:</p> <p>1) Any turbine that is equipped with a CEMS unit which continuously monitors NOx, CO and O2, during all operation of the turbine, need not perform the annual periodic emission monitoring described above.</p> <p>Dual Fuel Turbines:</p> <p>For turbines permitted to combust either natural gas or fuel oil, emission testing shall be required only on the fuel fired at the time of the test. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by periodic emission monitoring annually of NOx, CO and O2; or continuous emission monitoring of NOx, CO and O2. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Submit a report: Annually.</p> <p>A protocol to conduct periodic emission testing shall be submitted to the Emission Measurement Section (EMS), at P.O. Box 437, Trenton, NJ 08625, for approval, within 60 days of initial startup of the turbine. The approved protocol shall be used for all future periodic emission testing unless a modified protocol is approved by the Department. A revised protocol shall be submitted to EMS for approval whenever a revision is necessary.</p> <p>The permittee shall notify Enforcement and EMS at least 24 hours prior to performing periodic emission testing. Periodic emission testing for NOx, CO and O2 shall be performed annually in accordance with the approved protocol.</p> <p>Test reports shall be submitted to Chief, REO and Chief, EMS within 45 days following the end of each calendar year (starting with 2011) in the approved format to identify the facility name, emission unit, test date, and total operating hours for that year. Emissions of NOx and CO shall be reported in lb/hr, lb/MMBTU (HHV) and ppmvd @ 15% O2. The test results must be certified by a licensed professional engineer or by a certified industrial hygienist.</p> <p>If the turbine is equipped with a cems unit, which continuously monitors NOx, CO and O2 during turbine operation, annual periodic monitoring is not required and therefore no periodic emission test protocol or periodic emission report is required to be submitted to the Department. [N.J.A.C. 7:27-22.16(o)]</p>

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6	<p>Continuous Process Monitoring System for Ammonia:</p> <p>Continuous process monitor and continuous process data recorder shall be installed and operated, calibrated and maintained to measure and record the concentration of Ammonia emitted from emission point PT11. Emissions shall be monitored during all operation of the turbine.</p> <p>The Permittee shall submit an equipment protocol to the Department in accordance with the NJDEP Technical Manual 1005 for review and approval. [N.J.A.C. 7:27-22.16(a)]</p>	Other: Monitored by continuous process monitoring system continuously. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	<p>Submit an equipment protocol: As per the approved schedule * to the Department for review and approval.</p> <p>* This requirement added by BOP120001, previous permits required this protocol to be submitted with CEMs protocol.</p> <p>Install the approved continuous process monitor equipment 30 days prior to the initial start up of the combustion turbine.</p> <p>The permittee shall not commence combustion in the turbine prior to installation of the process monitor. [N.J.A.C. 7:27-22.16(o)]</p>
7	CO <= 250 ppmvd @ 15% O <sub>2</sub> . VOC RACT emission limit applies during all operation. [N.J.A.C. 7:27-16.9(b)]	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day. (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (See U11, 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 quarter year (the quarter years 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% O <sub>2</sub> . VOC RACT emission limit applies during all operation. [N.J.A.C. 7:27-16.9(b)]	VOC (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs. Stack testing shall be performed initially while combusting natural gas and ULSD and prior to permit renewal while combusting ULSD only. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (See U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]

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9	An exceedance of an emission limit that occurs during an adjustment of the combustion process under N.J.A.C. 7:27-19.16(g) is not a violation of this subchapter if it occurs as a result of the adjustment. After the combustion adjustment has been completed, the maximum emission rate of any contaminant shall not exceed the maximum allowable emission rate applicable under this subchapter or under an operating permit issued pursuant to N.J.A.C. 7:27-22 or an applicable certificate issued pursuant to N.J.A.C. 7:27-8. [N.J.A.C. 7:27-19.16(f)]	None.	None.	None.
10	All N.J.A.C. 7:27 -22.16(a) emission limits specified in this permit for emission unit U11 are not applicable during startup, shutdown or during the initial shakedown period. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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11	The Permittee shall adjust the combustion process in accordance with the procedure set forth at N.J.A.C. 7:27-19.16, in order to optimize the emission of NOx, CO and VOC. Adjustment of the combustion process shall be carried out according to manufacturer's recommended procedures and maintenance schedules for the turbine. [N.J.A.C. 7:27-16.9(f)2, N.J.A.C. 7:27-19.5(e)2] & [N.J.A.C. 7:27-19.16(g)]	Monitored by continuous emission monitoring system upon performing combustion adjustment Or Periodic Emission Monitoring. [N.J.A.C. 7:27-19.16(h)]	Recordkeeping by data acquisition system (DAS) / electronic data storage upon performing combustion adjustment or manual logging of parameter upon performing combustion adjustment. The records should be kept in a permanent form suitable for inspections. The owner or operator shall record the following information for each adjustment:  1. The date of the adjustment and the times at which it began and ended;  2. The name, title and affiliation of the person who performed the procedure and adjustment;  3. The type of procedure and maintenance performed;  4. The concentration of NOx, CO and O2 measured before and after the adjustment was made; and  5. The type and amount of fuel used since the last combustion adjustment was performed. [N.J.A.C. 7:27-19.16(h)]	None.
12	Start-up Period: Startup commences with initiation of the combustion of fuel in the combustion turbine and concludes when the turbine reaches steady state operation, or when combustion is ceased prior to attaining steady state operation (e.g. if start-up is abandoned due to malfunction).  The duration of start-up shall not exceed 20 minutes. [N.J.A.C. 7:27-22.16(a)]	Start-up Period: Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Start-up Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall show start-up start time, end time, date, total start-up time and name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.



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13	VOC (Total) <= 9.24 tons/yr , which includes fomaldehyde emission. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations each month during operation, based on a 12 calendar month period.  Calculate by using the following equation: VOC tons/year = [(most recent (natural gas) stack test emission factor (lb/MMBtu)) x (actual amount of natural gas combusted during the previous 12 month period (MMscf/yr)) x (1036.4 (MMBtu/MMscf)) / (2000 (lb/ton))] + [(most recent (ULSD) stack test emission factor (lb/MMBtu)) x (actual amount of ULSD combusted during the previous 12 month period (MMgal/yr)) x (135,000 (MMBtu/MMgal)) / (2000 (lb/ton))]. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
14	NOx (Total) <= 26.89 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a consecutive 365 day period (rolling 1 day basis). (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
15	SO2 <= 3.74 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations each month during operation, based on a 12 calendar month period.  Calculate by using following equation: SO2 tons/year = {[ (actual amount of natural gas combusted during the previous 12 month period (MMscf/yr)) x (1,000,000 (Scf/MMScf)) x [(concentration of sulfur in natural gas (ppmv)) / (1,000,000 (Scf/MMScf)) x [(32.06 (lb/lb mol S)) / (385.4 (scf/lb mol S)) / 2,000 (lb/ton)] x [(64.06 (lb/lb mol SO2)) / (32.06 (lb/lb mol S))]} + {[ (actual amount of ULSD combusted during the previous 12 month period (Kgal)) x (1,000 (gal/Kgal)) x (7.1 (lb/gal)) x (sulfur content in fuel (%)) / (100) / (2,000 (lb/ton))] x [(64.06 (lb/lb mol SO2)) / (32.06 (lb/lb mol S))]}]. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.

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16	Shutdown Period: Shutdown commences with initiation of lowering turbine power output with the intent to cease generation of electrical power output and concludes with the cessation of the combustion turbine operation.  The duration of shutdown shall not exceed 10 minutes. [N.J.A.C. 7:27-22.16(a)]	Shutdown Period: Monitored by hour/time monitor upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Shutdown Period: Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Records shall show shutdown start time, end time, date, total shutdown time and name of operator making the entry. [N.J.A.C. 7:27-22.16(o)]	None.
17	Turbine fuel limited to natural gas and ultra low sulfur distillate fuel oil (ULSD) [sulfur content <= 15 ppm]. [N.J.A.C. 7:27-22.16(a)]	Monitored by review of fuel delivery records per delivery . [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)]	None.
18	CO <= 30.93 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by continuous emission monitoring system continuously, based on a consecutive 365 day period (rolling 1 day basis). (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (See U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
19	TSP <= 25.1 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations each month during operation, based on a 12 calendar month period.  Calculate by using following equation: TSP tons/year = [(most recent (natural gas) stack test emission factor (lb/MMBtu)) x (actual amount of natural gas combusted during the previous 12 month period (MMscf/yr)) x (1036.4 (MMBtu/MMscf)) / (2000 (lb/ton))] + [(most recent (ULSD) stack test emission factor (lb/MMBtu)) x (actual amount of ULSD combusted during the previous 12 month period (MMgal/yr)) x (135,000 (MMBtu/MMgal)) / (2000 (lb/ton))]. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.

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20	PM-10 (Total) <= 25.1 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations each month during operation, based on a 12 calendar month period.  Calculate by using following equation: PM-10 tons/year = [(most recent (natural gas) stack test emission factor (lb/MMBtu)) x (actual amount of natural gas combusted during the previous 12 month period (MMscf/yr)) x (1036.4 (MMBtu/MMscf)) / (2000 (lb/ton))] + [(most recent (ULSD) stack test emission factor (lb/MMBtu)) x (actual amount of ULSD combusted during the previous 12 month period (MMgal/yr)) x (135,000 (MMBtu/MMgal)) / (2000 (lb/ton))]. [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 annually. [N.J.A.C. 7:27-22.16(o)]	None.
21	PM-2.5 (Total) <= 25.1 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations each month during operation, based on a 12 calendar month period.  Calculate by using following equation: PM-2.5 tons/year = [(most recent (natural gas) stack test emission factor (lb/MMBtu)) x (actual amount of natural gas combusted during the previous 12 month period (MMscf/yr)) x (1036.4 (MMBtu/MMscf)) / (2000 (lb/ton))] + [(most recent (ULSD) stack test emission factor (lb/MMBtu)) x (actual amount of ULSD combusted during the previous 12 month period (MMgal/yr)) x (135,000 (MMBtu/MMgal)) / (2000 (lb/ton))]. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
22	Ammonia <= 18.79 tons/yr. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by calculations each month during operation, based on a 12 calendar month period. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
23	HAPs (Total) <= 9.45 tons/yr. Annual emission limit, based on the sum of all reported HAPS. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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24	Acetaldehyde <= 1.356 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Acrolein <= 0.184 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Acetophenone <= 0.14 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Acenaphthene <= 0.0077 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Arsenic compounds <= 0.0023 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Beryllium compounds <= 0.00053 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(o)]	None.	None.	None.
30	Benzene <= 1.045 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
31	Benzo(b)fluoranthene <= 0.000213 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
32	Benzo (A) Pyrene Emissions <= 0.000265 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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33	Biphenyl <= 0.0267 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
34	Butadiene (1,3-) <= 0.00118 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(o)]	None.	None.	None.
35	Cadmium compounds <= 0.0197 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
36	Chromium compounds <= 0.586 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
37	Chromium (Hexavalent) Emissions <= 0.00454 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
38	Cobalt compounds <= 0.00467 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
39	Dioxins/Furans (TEQ) <= 0.00000211 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
40	Ethylbenzene <= 0.154 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
41	Formaldehyde <= 2.017 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
42	Fluorene <= 0.00124 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
43	Hexane (n-) <= 1.015 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
44	Indeno(1,2,3-cd)pyrene <= 0.00036 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
45	Lead compounds <= 0.0078 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
46	Manganese compounds <= 0.83 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
47	Methylnaphthalene (2-) <= 0.0143 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
48	Mercury compounds <= 0.0223 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
49	Nickel compounds <= 0.15 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
50	Naphthalene <= 0.0503 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
51	Propylene oxide <= 0.212 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
52	Phenanthrene <= 0.00824 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
53	Polycyclic organic matter <= 0.102 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
54	Pyrene <= 0.00162 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
55	Styrene <= 0.162 tons/yr. Annual emission limit based on 8260 hrs/yr combusting natural gas and 500 hr/yr combusting ULSD. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
56	Toluene <= 1.36 tons/yr. Annual emission limit based on 8760 hrs/yr combusting natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
57	Fuel Oil Usage <= 2.22 MMgal/yr. Maximum Ultra Low Sulfur Distillate (ULSD) oil consumption limit per 365 consecutive day period, rolling one day basis. Annual ULSD consumption limit, based on a heat rate of 608 MMBtu/hr, a ULSD heat value of 137,000 MMBtu/MMgal and combustion of ULSD for 500 hrs/yr. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Fuel Oil Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Manually or electronically log the gross heat input in Btu and fuel use in gallons electronically (computer, DAS or electronic operating system) each day. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
58	Natural Gas Usage <= 5,393 MMft <sup>3</sup> /yr. Maximum natural gas consumption limit per 365 consecutive day period, rolling one day basis. Annual natural gas consumption limit, based on a heat rate of 628 MMBtu/hr, a natural gas heat value of 1020 MMBtu/MMScf and combustion of natural gas for 8760 hrs/yr. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Manually or electronically log the gross heat input in Btu and fuel use in CUFT electronically (computer, DAS or electronic operating system) each day. [N.J.A.C. 7:27-22.16(o)]	None.
59	The Selective Catalytic Reduction system shall be used to destroy Nitrogen Oxides (NOx) resulting from combustion in the turbine, at the manufacturer's recommended operating flue gas flowrate range, such that NOx (Total) emissions as established for the turbines in this permit are met. [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction at the approved frequency. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain SCR system manufacturer's documentation, specifications, operation and maintenance manual on-site.[N.J.A.C. 7:27-22.16(o)].	None.
60	Water-to-Fuel Ratio: The water-to-fuel ratio shall be within the manufacturer's recommended limits. [N.J.A.C. 7:27-22.16(a)]	Water-to-Fuel Ratio: Monitored by water-to-fuel monitoring device continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Water-to-Fuel Ratio: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
61	The permittee shall operate the Water Injection System during all periods that the gas turbine combusts natural gas or ultra low sulfur distillate fuel oil (ULSD), except during start-up and shutdown. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The permittee shall continuously record the time and duration of the operation of both the gas turbine and the water injection system. [N.J.A.C. 7:27-22.16(o)]	None.
62	Catalytic Oxidizer (CD20): CO destruction efficiency shall be 90% (design value). [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction at the approved frequency. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain Catalytic Oxidizer system manufacturer's documentation, as built performance guarantee and operation & maintenance manual on-site.[N.J.A.C. 7:27-22.16(o)].	None.



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
63	<p>Ammonia Flow Rate to SCR <math>\geq</math> 84 lb/hr. The facility shall maintain the minimum flow rate during all operation, except during periods of startup and shutdown.</p> <p>The permittee shall not be considered in violation for any deviations from this requirement if corresponding NOx emissions from the gas turbine are in compliance with applicable emission limits as established in this permit. [N.J.A.C. 7:27-22.16(a)]</p>	Ammonia Flow Rate to SCR: Monitored by material feed/flow monitoring continuously, based on a 1 hour block average. [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.
64	Selective Catalytic Reduction System (CD3): NOx Removal efficiency $\geq$ 90 % (design value). [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction at the approved frequency. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall keep SCR manufacturer's documentation, as-built performance guarantee and operation and maintenance manual on-site.[N.J.A.C. 7:27-22.16(o)].	None.
65	The SCR (CD19) shall be operated at all times that the turbine is operating, except during start-up and shutdown. [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously. The permittee shall record the time and duration of the operation of both the SCR and the gas turbine. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The permittee shall continuously record the time and duration of the operation of both the gas turbine and the selective catalytic reduction unit (SCR). [N.J.A.C. 7:27-22.16(o)]	None.
66	The Catalytic Oxidizer CD20 shall be used to destroy carbon monoxide (CO) and volatile organic compounds (VOC) resulting from the combustion of fuel in the turbine at the manufacturer's recommended operating flue gas flowrate range, such that CO and VOC (Total) emission limits, as established in this permit, are met. [N.J.A.C. 7:27-22.16(a)]	Monitored by documentation of construction at the approved frequency. [N.J.A.C. 7:27-22.16(o)]	Other: The permittee shall maintain Catalytic Oxidizer system manufacturer's documentation, specifications, operation and maintenance manual on-site.[N.J.A.C. 7:27-22.16(o)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
67	<p>Temperature at Exit of Catalyst <math>\geq</math> 550 and Temperature at Exit of Catalyst <math>\leq</math> 800 degrees F Except during startup/shutdown periods.</p> <p>The permittee shall not be considered in violation for any deviation from this requirement if corresponding NO<sub>x</sub> emissions from the gas turbine is in compliance with applicable emission limits as established in this permit. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Temperature at Exit of Catalyst: Monitored by temperature instrument continuously, based on a 1 hour block average. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Temperature at Exit of Catalyst: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]</p>	None.
68	<p>The Catalytic Oxidizer (CD20) array(s) shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer and based on usage rates and CO emission levels indicated through CEM/stack testing.</p> <p>The SCR catalyst (CD19) array(s) shall be maintained and replaced in accordance with the recommendations and schedules of the manufacturer and based on NO<sub>x</sub> emission levels indicated through CEM/stack testing. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by documentation of construction at the approved frequency. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other: Record keeping by manual logging of parameter or storing data in computer system. The permittee shall maintain the catalyst maintenance and replacement records on-site.[N.J.A.C. 7:27-22.16(o)].</p>	None.
69	<p>The oxidation catalyst (CD20) shall be operated at all times that the turbine is operating except during start-up and shutdown. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by hour/time monitor continuously, based on an instantaneous determination. The permittee shall record the time and duration of the operation of both the oxidation catalyst and the gas turbine. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The permittee shall continuously record the time and duration of the operation of the stationary combustion turbine and the oxidation catalyst unit. [N.J.A.C. 7:27-22.16(o)]</p>	None.
70	<p>Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the Southern Regional Enforcement Office of NJDEP at:</p> <p>One Port Center 2 Riverside Drive, Suite 201 Camden, NJ 08103. [40 CFR 60.4(b)]</p>	None.	None.	<p>Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
71	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(1)]
72	The permittee shall submit an Excess Emission Monitoring Performance Report to the appropriate Regional Enforcement Office (REO) for review and approval. This report shall be submitted to the REO whether or not an emission exceedance has occurred. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system at no required frequency. [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 quarter year (the quarter years 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
73	The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit. This QA/QC plan shall incorporate at a minimum those procedures outlined in 40 CFR, Part 60, Appendix F and/or 40 CFR, Part 75, Appendix B for CEMS and those procedures outlined in 40 CFR, Part 60, Appendix B, Specification One and 40 CFR, Part 51, Proposed RM 203 for COMS, published Department Technical Manuals or other procedures approved in writing by the Department. The QA/QC plan shall designate a coordinator for the facility who is responsible to ensure that the QA/QC plan is implemented. The Department reserves the right to require the QA/QC plan to be revised at any time based on the results of quarterly EEMPR reviews, inspections, audits or any other information available to the Department. All procedures outlined in the QA/QC plan shall commence upon the completion date of the PST. All redundant CEMS/COMS must undergo the QA/QC procedure. [N.J.A.C. 7:27-22.16(a)] [N.J.A.C. 7:27-22.16(a)]	Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis.[N.J.A.C. 7:27-22.16(o)].	Other: Maintain readily accessible records of the QA/QC plan including QA date and quarterly reports.[N.J.A.C. 7:27-22.16(o)].	Submit a report: Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). All quarterly and annual QA data shall be included in quarterly EEMPR reports and kept on file at the facility. The QA data must be made available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
74	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in section 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)]
75	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to:  Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2 290 Broadway New York, NY 10007-1866 [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
76	Each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see section 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. [40 CFR 60.7(c)]	None.	Other: Written reports of excess emissions shall include the following information: (1) The magnitude of excess emissions computed in accordance with section 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period and excess emissions. The process operating time during the reporting period. (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted. (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments. (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)].	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]
77	The owner or operator shall conduct performance tests and reduce data in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. [40 CFR 60.8(b)]	None.	None.	None.
78	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(3)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
79	All continuous emission monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests specified under 40 CFR Part 60.8. The owner or operator shall follow manufacturer's written recommendations for installation, operation and calibration of the device. [40 CFR 60.13(b)]	Other: During any performance test required under 40 CFR Part 60.8 or within 30 days thereafter, the owner or operator shall conduct a performance evaluation of the continuous emission monitoring system in accordance with applicable performance specification in Appendix B of 40 CFR Part 60.[40 CFR 60.13(c)].	None.	Submit a report: As per the approved schedule Within 60 days of completion of the performance test, furnish the Administrator two or, upon request, more copies of the results of the performance evaluation. [40 CFR 60.13(c)(2)]
80	Performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of the performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]	None.	None.	None.
81	The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall contain the information required in 40 CFR 60.7(b) and be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]

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82	The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. [40 CFR 60.7(f)]	None.	Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, all adjustments/maintenance performed on these systems or devices, and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the dates of the record, except as prescribed in 40 CFR 60.7(f)(1) through (3). Sources subject to 40 CFR 70, are required to retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application, per 40 CFR 70.6(a)(3)(ii)(B). [40 CFR 60.7(f)].	None.
83	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.



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84	Within 60 days after achieving the maximum production rate at which the affected facility will operate, but not later than 180 days after initial startup of the facility, the owner or operator shall conduct performance test(s) and shall furnish the Administrator a written report of the results. [40 CFR 60.8(a)]	None.	None.	Submit a report: At a common schedule agreed upon by the operator and the Administrator. The owner or operator shall submit results of the performance test(s) to the Administrator. [40 CFR 60.8(a)]
85	The owner or operator shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts or otherwise allowed by the Administrator, and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e). [40 CFR 60.8(d)]	None.	None.	None.
86	Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [40 CFR 60.8(f)]	None.	None.	None.
87	To demonstrate continuous compliance with NOx limit, the owner or operator of a turbine that uses steam or water injection may, as alternative to operating the continuous monitoring system described in 40 CFR 60.4335(a), install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NOx monitor and a diluent gas O2 or CO2 monitors to determine the hourly NOx emission rate in ppm or lb/MMBtu. [40 CFR 60.4335(b)(1)]	Monitored by continuous emission monitoring system continuously. [40 CFR 60.4335(b)(1)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [40 CFR 60.4335(b)(1)]	None.
88	Compliance with NSPS standards specified in this permit, other than opacity, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. [40 CFR 60.11(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
89	All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR Part 60 shall be used. [40 CFR 60.13(f)]	None.	None.	None.
90	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.
91	The owner or operator shall perform zero and span adjustments daily for continuous emission monitors and continuous opacity monitors following procedures outlined in 40 CFR Part 60.13(d)1 & 2. [40 CFR 60.13(d)]	None.	Other: Maintain records in accordance with 40 CFR 60.7(f). [40 CFR 60.13(d)].	None.
92	Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems referenced by 40 CFR 60.13(c) measuring emissions except opacity shall be in continuous operation. They shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(2)]	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	Other: See Applicable Requirement. [40 CFR 60.13(e)(2)].	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
93	The owner or operator of a turbine that uses steam or water injection and complying with the output-based standard shall install, calibrate, maintain and operate a watt meter to continuously measure the gross electrical output of the affected unit in megawatt-hours. [40 CFR 60.4335(b)(3)]	Monitored by other method (provide description) continuously. The gross electrical output of the unit in megawatt-hours shall be monitored by watt meter (or (meters) and shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. [40 CFR 60.4345(d)]	None.	None.
94	The permittee shall install and certify a NO <sub>x</sub> diluent CEMS in accordance with appendix A to 40 CFR 75. The relative accuracy test audit (RATA) shall be performed on a lb/MMBtu basis.  *** Pursuant to 40 CFR 60.4345(a), the permittee may choose to comply with Ref #80 or #81 *** [40 CFR 60.4345(a)]	Monitored by continuous emission monitoring system continuously. During each full unit operating hour, both the NO <sub>x</sub> monitor and the diluent monitor must complete a minimum of one cycle of operation (Sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour, as specified in 40 CFR 60.13(e)(2). The permittee shall follow procedure described in 40 CFR 60.4345(b) for partial unit operating hours. [40 CFR 60.4345(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NO <sub>x</sub> CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.

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

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
97	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.
98	The owner or operator shall operate and maintain the subject stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction. [40 CFR 60.4333(a)]	None.	None.	None.
99	The owner or operator of a turbine that uses steam or water injection and complying with the output-based standard shall install, calibrate, maintain and operate a fuel flow meter to continuously measure the heat input to the affected unit. [40 CFR 60.4335(b)(2)]	Monitored by fuel flow/firing rate instrument continuously. Each fuel flowmeter shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. Alternatively, with the NJDEP approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR 75 are acceptable. [40 CFR 60.4345(c)]	Other: The permittee shall record time in which the data for fuel flow rate are either missing or invalid. [40 CFR 60.4380(b)(2)].	None.
100	<p>The permittee shall install and certify each NOx diluent CEMS in accordance with Performance Specifications 2 (PS2) as described in appendix B to 40 CFR 60. The 7 day calibration drift should be based on unit operating days, not calendar days. Upon the Bureau of Technical Services of NJDEP approval, Procedure 1 in appendix F to 40 CFR 60 is not required. The relative accuracy test audit (RATA) shall be performed on a lb/MMBtu basis.</p> <p>*** Pursuant to 40 CFR 60.4345(a), the permittee may choose to comply with Ref #80 or #81 *** [40 CFR 60.4345(a)]</p>	Monitored by continuous emission monitoring system continuously. During each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (Sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour, as specified in 40 CFR 60.13(e)(2). The permittee shall follow procedure described in 40 CFR 60.4345(b) for partial unit operating hours. [40 CFR 60.4345(b)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NOx CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
101	The permittee shall install, calibrate, maintain, and operate each fuel flowmeter in accordance with the manufacturer's instructions or, with NJDEP approval, in accordance with the requirements of appendix D to 40 CFR 75. [40 CFR 60.4345(c)]	Monitored by fuel flow/firing rate instrument continuously. Each fuel flowmeter shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. Alternatively, with the NJDEP approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR 75 are acceptable. [40 CFR 60.4345(c)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. For NO <sub>x</sub> CEMS and fuel flow meters, the QA program and plan described in section 1 of appendix B to 40 CFR 75 may, with state approval, satisfy this requirement. [40 CFR 60.4345(e)]	None.
102	The permittee shall install, calibrate, maintain, and operate each watt meter, steam flow meter, and each pressure or temperature measurement device in accordance with the manufacturer's instructions. [40 CFR 60.4345(d)]	Monitored by other method (provide description) continuously. The gross electrical output of the unit in megawatt-hours shall be monitored by watt meter (or (meters) and shall be installed, calibrated, maintained and operated according to the manufacturer's instructions. [40 CFR 60.4345(d)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment. [40 CFR 60.4345(e)]	None.
103	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]
104	The owner or operator shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.4415 or, alternatively, as allowed in 40 CFR 60.4360. The analyses may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]	Other: The owner or operator may develop custom schedule for determination of the total sulfur content of gaseous fuels. The custom schedule shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the Sulfur standard in fuel except for the two custom schedules set forth in 40 CFR 60.4370(c)(1)(i) through (iv) and in 40 CFR 60.4370(c)(2) which are acceptable without prior Administrator approval.[40 CFR 60.4370(c)].	Recordkeeping by certified lab analysis results at the approved frequency. The owner or operator shall record the results of each analysis for fuel sulfur content. [40 CFR 60.4415]	Submit a report: As per the approved schedule. The permittee shall determine excess emissions and monitoring downtime as described in 40 CFR 60.4385(a) through (c) and submit an excess emissions report by the 30th day following the end of each 6-month period as prescribed in 40 CFR 60.4395. [40 CFR 60.4385]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
105	The owner or operator may elect not to monitor the total sulfur content of the fuel combusted in the turbine if the fuel is demonstrated not to exceed potential sulfur emissions of 0.060 lb SO <sub>2</sub> /MMBtu heat input for units located in continental areas. [40 CFR 60.4365]	Monitored by grab sampling at the approved frequency. The required demonstration that the total sulfur content of the fuel does not exceed potential sulfur emissions of 0.060 lb SO <sub>2</sub> /MMBtu shall be made using representative fuel sampling. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR 75 is required. [40 CFR 60.4365(b)]	Recordkeeping by certified lab analysis results at the approved frequency. The owner or operator shall record the results of each analysis for fuel sulfur content. [40 CFR 60.4365(b)]	Demonstrate compliance: Once initially. The owner or operator shall submit the required determination to the Administrator using the sources of information described in 40 CFR 60.4365(a) showing the maximum total sulfur content for continental areas for oil use at 0.05 weight percent or less and for natural gas at 20 grains of sulfur or less per 100 standard cubic feet or to demonstrate that fuel has potential sulfur emissions of less than 0.060 lb SO <sub>2</sub> /MMBtu heat input. [40 CFR 60.4365(b)]
106	The owner or operator shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) for Nitrogen oxides. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. An excess emissions as defined in 40 CFR 60.4380(b)1 is any unit operating period in which the 4-hour (for simple cycle turbines) or 30-day rolling average NO <sub>x</sub> emission rate exceeds the applicable emission limit in 40 CFR 60.4320. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO <sub>x</sub> concentration, CO <sub>2</sub> or O <sub>2</sub> concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if used for compliance demonstration. [40 CFR 60.4380(b)]	Other: For the purposes of identifying excess emissions based on data from the continuous emission monitoring equipment the permittee shall follow procedures described in 40 CFR 60.4350(a), (b), (c), (e), (f), (g), and (h). If a NO <sub>x</sub> diluent CEMS meets the requirements of 40 CFR 75, only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in subpart D of 40 CFR 75 are applied are to be reported as monitor downtime.[40 CFR 60.4350].	None.	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. All reports required under 40 CFR 60.7(c) must be postmarked by the 30th day following the end of each 6-moth period. [40 CFR 60.4395]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
107	The owner or operator shall submit reports of excess emissions and monitor downtime for Sulfur content in the fuel. An excess emissions as defined in 40 CFR 60.4385(a) and (b) occurs each unit hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrate compliance with the sulfur limit. A period of monitor downtime begins when a required sample is not taken by its due date or if a sample is taken but invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. [40 CFR 60.4385]	None.	None.	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. All reports required under 40 CFR 60.7(c) must be postmarked by the 30th day following the end of each 6-moth period. [40 CFR 60.4395]
108	Acid Rain: Comply with the requirements contained in the attached Acid Rain Permit (Appendix II). [40 CFR 72]	Other: Acid Rain: Comply with the requirements contained in the attached Acid Rain Permit (Appendix II).[40 CFR 72].	Other: Acid Rain: Comply with the requirements contained in the attached Acid Rain Permit (Appendix II).[40 CFR 72].	Other (provide description): As per the approved schedule Acid Rain: Comply with the requirements contained in the attached Acid Rain Permit (Appendix II). [40 CFR 72]



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Emission Unit: U11 Gas Turbine - Unit 11

Operating Scenario: OS1 Unit 11 Firing Natural Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Particulate Emissions <= 62.8 lb/hr Particulate emission limit from the combustion of natural gas based on rated heat input of 628 MMBtu/hr. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	VOC (Total) <= 0.0033 lb/MMBTU , which includes formaldehyde emission. Based on a heat input of 628 MMBtu/hr and VOC emission rate of 2.1 lb/hr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary ). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
5	VOC (Total) <= 2.1 lb/hr , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, OS Summary ). [N.J.A.C. 7:27-22.16(o)]
6	VOC (Total) <= 2.6 ppmvd @ 15% O2 , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, 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
7	NOx (Total) <= 1 lb/MW-hr. NOx RACT emission limit applies during all periods of natural gas combustion. [N.J.A.C. 7:27-19.5(g)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-21.16(o)]
8	NOx (Total) <= 2.5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee / SOTA. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
9	NOx (Total) <= 2.5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee / SOTA. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
10	NOx (Total) <= 0.01 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 2.5 ppm. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11 / 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 quarter year (the quarter years 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
11	NOx (Total) <= 0.01 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 2.5 ppm. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary .). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
12	NOx (Total) <= 5.79 lb/hr. Based on vendor guarantee. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
13	NOx (Total) <= 5.79 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
14	CO <= 5 ppmvd @ 15% O2. Based on vendor guarantee. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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
15	CO <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
16	CO <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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 <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
18	CO <= 7.04 lb/hr. Based on vendor guarantee. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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
19	CO <= 7.04 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
20	SO <sub>2</sub> <= 1.12 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	SO <sub>2</sub> : Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	SO <sub>2</sub> : Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
21	TSP <= 5 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
22	PM-10 (Total) <= 5 lb/hr. Based on vendor guarantee. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
23	PM-2.5 (Total) <= 5 lb/hr. Based on PM-10 permitted emission rate. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
24	Ammonia <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (See U11, OSS). [N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	Ammonia <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
26	Ammonia <= 4.28 lb/hr. Based on vendor specification. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
27	HAPs (Total) <= 2.05 lb/hr. Hourly emission limit, based on the sum of all reported HAPS. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
28	Acetaldehyde <= 0.31 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 4.93 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Acetophenone <= 0.032 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.10 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
30	Acenaphthene <= 0.00176 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.80 E-06 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
31	Acrolein <= 0.042 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 6.69 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
32	Arsenic compounds <= 0.000148 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.35 E-7 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	Benzene <= 0.239 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 3.80 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
34	Biphenyl <= 0.0061 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 9.72 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
35	Benzo (A) Pyrene Emissions <= 0.0000564 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 8.98 E-08 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
36	Benzo(b)fluoranthene <= 0.0000414 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 6.59 E-08 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
37	Butadiene (1,3-) <= 0.00027 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 4.30 E-7 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
38	Beryllium compounds <= 0.0000168 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.67 E-8 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
39	Cadmium compounds <= 0.00435 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 6.93 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
40	Chromium compounds <= 0.113 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.80 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
41	Chromium (Hexavalent) Emissions $\leq$ 0.00104 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.65 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
42	Cobalt compounds $\leq$ 0.000103 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.64 E-7 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
43	Dioxins/Furans (TEQ) $\leq$ 4.82E-7 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 7.67 E-10 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
44	Ethylbenzene $\leq$ 0.0351 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.59 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
45	Fluorene $\leq$ 0.000282 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 4.49 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
46	Formaldehyde $\leq$ 0.446 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 7.10 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
47	Hexane (n-) $\leq$ 0.232 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 3.69 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
48	Indeno(1,2,3-cd)pyrene $\leq$ 0.0000823 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.31 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
49	Lead compounds <= 0.00117 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.86 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
50	Manganese compounds <= 0.171 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.73 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
51	Methylnaphthalene (2-) <= 0.00327 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.20 E-06 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
52	Mercury Emissions <= 0.00509 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 8.11 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
53	Naphthalene <= 0.00477 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 7.60 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
54	Nickel compounds <= 0.00955 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 1.52 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
55	Phenanthrene <= 0.00144 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.30 E-06 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
56	Propylene oxide <= 0.0355 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.66 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
57	Polycyclic organic matter <= 0.0146 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 2.33 E-05 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
58	Pyrene <= 0.000371 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.9 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
59	Styrene <= 0.0371 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 5.90 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
60	Toluene <= 0.31 lb/hr. Hourly emission limit based on a heat input of 628 MMBtu/hr and an emission factor of 4.94 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
61	<p>NOx (Total) &lt;= 25 ppmvd @ 15% O<sub>2</sub>. This limit applies to a turbine that has heat input at peak load greater than 50 MMBtu/hr (HHV) but less or equal to 850 MMBtu/hr (HHV) firing natural gas and which commenced construction after February 18, 2005.</p> <p>*** Pursuant to 40 CFR 60.4320(a), this turbine is subject to either the input or the output NSPS limit (25 ppmvd @ 15% O<sub>2</sub> or 1.2 lb/MW<sub>hr</sub>)***. [40 CFR 60.4320(a)]</p>	<p>NOx (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs. The owner or operator shall conduct an initial performance test as required in 40 CFR 60.8. Annual testing shall be conducted thereafter (within 14 months following the previous performance test) unless the test results for the initial test are below 75% of the emission limit for NOx, when the test frequency may be reduced to every two years (within 26 months following the previous performance test). Test methods and procedures shall be consistent with the requirements of 40 CFR 60.4400 or, if a NOx diluent CEMS is installed, consistent with 40 CFR 60.4405. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. [40 CFR 60.4400]</p>	<p>NOx (Total): Recordkeeping by stack test results at the approved frequency. [40 CFR 60.4460]</p>	<p>Submit a report: As per the approved schedule. The owner or operator shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]</p>
62	<p>SO<sub>2</sub> &lt;= 0.06 lb/MMBTU. No owner or operator shall burn any fuel which contains total potential sulfur emissions in excess of specified limit. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [40 CFR 60.4330(a)(2)]</p>	<p>SO<sub>2</sub>: Monitored by grab sampling at the approved frequency. Sampling shall be performed once initially and annually thereafter (no more than 14 calendar months between tests). Test methods and procedures shall be consistent with 40 CFR 60.4415(a)(1). The fuel analyses may be performed by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]</p>	<p>None.</p>	<p>Submit a report: Once initially. The permittee shall furnish the Administrator and NJDEP a written report of the results of fuel analyses. The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO<sub>2</sub> per MMBtu heat input. [40 CFR 60.8(a)]</p>
63	<p>Turbine fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)]</p>	<p>None.</p>	<p>Recordkeeping by invoices / bills of lading per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>
64	<p>Maximum Gross Heat Input &lt;= 628 MMBTU/hr (HHV) while firing natural gas. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

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Emission Unit: U11 Gas Turbine - Unit 11

Operating Scenario: OS2 Firing ULSD, &lt;=5ppm NOx emissions

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	<p>Opacity: Monitored by visual determination at the approved frequency, based on an instantaneous determination. A certified smoke reader shall conduct visual observations once every 100 hours of ultra low sulfur distillate fuel oil (ULSD) operation using NJ Test Method 2.</p> <p>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100-hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of ULSD fired operation. If the visual observation occurs at a lesser frequency than every 100 hours of ULSD operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	Opacity: Monitored by visual determination at the approved frequency, based on an instantaneous determination. A certified smoke reader shall conduct visual observations once every 100 hours of ultra low sulfur distillate fuel oil (ULSD) operation using NJ Test Method 2.  Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100-hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of ULSD fired operation. If the visual observation occurs at a lesser frequency than every 100 hours of ULSD operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
3	Particulate Emissions <= 60.8 lb/hr Particulate emission limit from the combustion of Ultra Low Sulfur Distillate based on rated heat input of 608 MMBtu/hr. [N.J.A.C. 7:27- 4.2(a)]	Particulate Emissions: Monitored by stack emission testing once initially and prior to permit expiration date, based on each of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
4	NOx (Total) <= 1.6 lb/MW-hr. NOx RACT emission limit applies during all periods of ultra low sulfur distillate combustion. [N.J.A.C. 7:27-19.5(g)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. (see U11, OS Summary ). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-21.16(o)]

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5	NOx (Total) <= 5 ppmvd @ 15% O2. Based on vendor guarantee. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
6	NOx (Total) <= 5 ppmvd @ 15% O2. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 0.02 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 5.0 ppm. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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	NOx (Total) <= 0.02 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 5.0 ppm. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]

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9	NO <sub>x</sub> (Total) <= 11.8 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	NO <sub>x</sub> (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (see U11, OS Summary ). [N.J.A.C. 7:27-22.16(o)]	NO <sub>x</sub> (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
10	NO <sub>x</sub> (Total) <= 11.8 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	NO <sub>x</sub> (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NO <sub>x</sub> (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
11	CO <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee and modification application BOP090003. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
12	CO <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]

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13	CO <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
14	CO <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
15	CO <= 7.2 lb/hr. Based on vendor guarantee. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
16	CO <= 7.2 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]



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17	VOC (Total) <= 2.84 ppmvd @ 15% O <sub>2</sub> , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
18	VOC (Total) <= 0.0038 lb/MMBTU , which includes formaldehyde emission. Based on a heat input of 608 MMBtu/hr and VOC emission rate of 2.34 lb/hr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
19	VOC (Total) <= 2.34 lb/hr , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
20	SO <sub>2</sub> <= 0.99 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	SO <sub>2</sub> : Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	SO <sub>2</sub> : Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-21.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
21	TSP <= 17.8 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and prior to permit expiration date, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]

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22	PM-2.5 (Total) <= 17.8 lb/hr. Based on vendor guarantee. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
23	PM-10 (Total) <= 17.8 lb/hr. Based on vendor guarantee. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
24	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (See U11, OSS). [N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
25	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
26	Ammonia <= 4.37 lb/hr. Based on vendor specification. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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
27	<p>NO<sub>x</sub> (Total) ≤ 74 ppmvd @ 15% O<sub>2</sub>. This limit applies to a turbine that has heat input at peak load greater than 50 MMBtu/hr (HHV) but less or equal to 850 MMBtu/hr (HHV) firing fuels other than natural gas and which commenced construction after February 18, 2005.</p> <p>*** Pursuant to 40 CFR 60.4320(a), this turbine is subject to either the input or the output NSPS limit (74 ppmvd @ 15% O<sub>2</sub> or 3.6 lb/MWhr)***. [40 CFR 60.4320(a)]</p>	<p>NO<sub>x</sub> (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs. The owner or operator shall conduct an initial performance test as required in 40 CFR 60.8. Annual testing shall be conducted thereafter (within 14 months following the previous performance test) unless the test results for the initial test are below 75% of the emission limit for NO<sub>x</sub>, when the test frequency may be reduced to every two years (within 26 months following the previous performance test). Test methods and procedures shall be consistent with the requirements of 40 CFR 60.4400 or, if a NO<sub>x</sub> diluent CEMS is installed, consistent with 40 CFR 60.4405. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. [40 CFR 60.4400]</p>	<p>NO<sub>x</sub> (Total): Recordkeeping by stack test results at the approved frequency. [40 CFR 60.4460]</p>	<p>Submit a report: As per the approved schedule. The owner or operator shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]</p>
28	<p>SO<sub>2</sub> ≤ 0.06 lb/MMBTU. No owner or operator shall burn any fuel which contains total potential sulfur emissions in excess of specified limit. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [40 CFR 60.4330(a)(2)]</p>	<p>SO<sub>2</sub>: Monitored by grab sampling once initially. Test methods and procedures shall be consistent with 40 CFR 60.4415(a)(1). The fuel analyses may be performed by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]</p>	<p>None.</p>	<p>Submit a report: Once initially. The permittee shall furnish the Administrator and NJDEP a written report of the results of fuel analyses. The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO<sub>2</sub> per MMBtu heat input. [40 CFR 60.8(a)]</p>
29	<p>Sulfur Content in Fuel ≤ 0.0015 % by weight. [N.J.A.C. 7:27- 9.2(b)]</p>	<p>Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Sulfur Content in Fuel: Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>
30	<p>Turbine fuel limited to ultra low sulfur distillate fuel oil (ULSD) [sulfur content ≤ 15 ppm]. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>

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31	Hours of Operation While Firing Fuel Oil <= 500 hr/yr. Unless NOx emissions can be maintained at a concentration of <=3.5 ppm @ 15% O <sub>2</sub> , Ultra Low Sulfur Distillate (ULSD) oil shall be fired only during periods of natural gas curtailment, compliance stack testing and testing of turbines as part of a testing and maintenance program, or as otherwise needed as an emergency fuel when the owner or operator is not practicably able to obtain a sufficient supply of natural gas. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Fuel Oil: Monitored by hour/time monitor daily, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Fuel Oil: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. A record shall be made for each period that light distillate fuel oil is burned. Each record shall show the date, start time, end time, amount of fuel consumed, the name of the person making the entry, and reason for combusting ULSD. If oil is being burned as an emergency fuel, this record shall contain a statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas, the date and time at which the owner or operator first became unable to practicably obtain natural gas, and a description of the circumstances causing the owner or operator's inability to obtain natural gas. [N.J.A.C. 7:27-22.16(o)]	None.
32	HAPs (Total) <= 3.6 lb/hr. Hourly emission limit, based on the sum of all reported HAPS. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
33	Acetaldehyde <= 0.3 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.93 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
34	Acetophenone <= 0.031 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.10 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
35	Acrolein <= 0.0407 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 6.69 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
36	Benzene <= 0.231 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 3.80 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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37	Biphenyl <= 0.00591 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 9.72 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
38	Butadiene (1,3-) <= 0.0000302 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.97 E-8 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
39	Dioxins/Furans (TEQ) <= 4.66E-7 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 7.67E-10 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
40	Ethylbenzene <= 0.034 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.59E-05 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
41	Hexane (n-) <= 0.224 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 3.69 E-04 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
42	Formaldehyde <= 0.687 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.13 E-03 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
43	Naphthalene <= 0.122 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.01 E-04 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
44	Propylene oxide <= 0.258 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.25 E-04 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
45	Styrene <= 0.0359 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.90 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
46	Toluene <= 0.0273 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.49 E-05 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
47	Polycyclic organic matter <= 0.167 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.75 E-04 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
48	Methylnaphthalene (2-) <= 0.00316 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.20 E-06 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
49	Acenaphthene <= 0.000246 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.04 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
50	Benzo (A) Pyrene Emissions <= 0.000128 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.11 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
51	Benzo(b)fluoranthene <= 0.000165 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.72 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
52	Fluorene <= 0.000154 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.54 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
53	Indeno(1,2,3-cd)pyrene <= 0.0000162 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.66 E-08 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
54	Phenanthrene <= 0.00906 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.49 E-05 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
55	Pyrene <= 0.000168 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.76 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
56	Arsenic compounds <= 0.00669 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.10 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
57	Beryllium compounds <= 0.00182 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 3.0 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
58	Cadmium compounds <= 0.00669 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.10 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
59	Chromium (Hexavalent) Emissions <= 0.000073 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.2 E-7 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
60	Chromium compounds <= 0.472 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 7.74 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
61	Cobalt compounds <= 0.017 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.79 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
62	Lead compounds <= 0.0117 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.93 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
63	Manganese compounds <= 0.48 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 7.9 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
64	Mercury Emissions <= 0.00182 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 3.0 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
65	Nickel compounds <= 0.441 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 7.25 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
66	Maximum Gross Heat Input <= 608 MMBTU/hr (HHV) while firing ULSD fuel oil. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.



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**Emission Unit:** U11 Gas Turbine - Unit 11**Operating Scenario:** OS3 Firing ULSD, <=3.5ppm NOx emissions

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. Smoke emissions from stationary combustion turbines no greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	<p>Opacity: Monitored by visual determination at the approved frequency, based on an instantaneous determination. A certified smoke reader shall conduct visual observations once every 100 hours of ultra low sulfur distillate fuel oil (ULSD) operation using NJ Test Method 2.</p> <p>Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100-hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of ULSD fired operation. If the visual observation occurs at a lesser frequency than every 100 hours of ULSD operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(o)]</p>	Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	Opacity <= 10 %. Smoke emissions from stationary combustion turbines no greater than 10% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(a)]	Opacity: Monitored by visual determination at the approved frequency, based on an instantaneous determination. A certified smoke reader shall conduct visual observations once every 100 hours of ultra low sulfur distillate fuel oil (ULSD) operation using NJ Test Method 2.  Monitoring and recordkeeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g., nighttime operation, weather conditions, unplanned dispatching, etc.) within the 100-hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of ULSD fired operation. If the visual observation occurs at a lesser frequency than every 100 hours of ULSD operation, the reason for monitoring at the lesser frequency shall also be recorded. [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
3	Particulate Emissions <= 60.8 lb/hr. Particulate emission limit from the combustion of Ultra Low Sulfur Distillate based on rated heat input of 608 MMBtu/hr. [N.J.A.C. 7:27- 4.2(a)]	Particulate Emissions: Monitored by stack emission testing once initially and prior to permit expiration date, based on each of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
4	NOx (Total) <= 1.6 lb/MW-hr. NOx RACT emission limit applies during all periods of ultra low sulfur distillate combustion. [N.J.A.C. 7:27-19.5(g)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a calendar day (in ozone season) or 30 day rolling (at other times) average. (see U11, OS Summary ). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-21.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	NOx (Total) <= 3.5 ppmvd @ 15% O2. Based on SOTA for CC turbines. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
6	NOx (Total) <= 3.5 ppmvd @ 15% O2. Based on SOTA for CC turbines. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 0.014 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 3.5 ppmvd@15%O2. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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	NOx (Total) <= 0.014 lb/MMBTU. Based on method 19 calculations and a NOx concentration of 3.5 ppmvd@15%O2. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, 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
9	CO <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee and modification application BOP090003. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
10	CO <= 5 ppmvd @ 15% O <sub>2</sub> . Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
11	CO <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, 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 quarter year (the quarter years 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)]
12	CO <= 0.012 lb/MMBTU. Based on method 19 calculations and a CO concentration of 5.0 ppm. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, 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
13	VOC (Total) <= 2.84 ppmvd @ 15% O <sub>2</sub> , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
14	VOC (Total) <= 0.0038 lb/MMBTU , which includes formaldehyde emission. Based on a heat input of 608 MMBtu/hr and VOC emission rate of 2.34 lb/hr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
15	VOC (Total) <= 2.34 lb/hr , which includes formaldehyde emission. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
16	SO <sub>2</sub> <= 0.99 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	SO <sub>2</sub> : Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	SO <sub>2</sub> : Recordkeeping by stack test results once initially. (see U11, OS Summary). [N.J.A.C. 7:27-21.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
17	TSP <= 17.8 lb/hr. Based on vendor guarantee. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and prior to permit expiration date, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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
18	PM-2.5 (Total) <= 17.8 lb/hr. Based on vendor guarantee. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
19	PM-10 (Total) <= 17.8 lb/hr. Based on vendor guarantee. [40 CFR 52.21] and. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
20	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by continuous process monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (See U11, OSS). [N.J.A.C. 7:27-22.16(o)].	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	None.
21	Ammonia <= 5 ppmvd @ 15% O2. Based on vendor specification / SOTA. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
22	Ammonia <= 4.37 lb/hr. Based on vendor specification. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by stack emission testing once initially, based on each of three Department validated stack test runs. Permit renewal testing not required if the turbine is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results at the approved frequency. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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. Permit renewal testing not required if the turbine is operated as a "peaking unit". (see U11, 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
23	<p>NO<sub>x</sub> (Total) ≤ 74 ppmvd @ 15% O<sub>2</sub>. This limit applies to a turbine that has heat input at peak load greater than 50 MMBtu/hr (HHV) but less or equal to 850 MMBtu/hr (HHV) firing fuels other than natural gas and which commenced construction after February 18, 2005.</p> <p>*** Pursuant to 40 CFR 60.4320(a), this turbine is subject to either the input or the output NSPS limit (74 ppmvd @ 15% O<sub>2</sub> or 3.6 lb/MWhr)***. [40 CFR 60.4320(a)]</p>	<p>NO<sub>x</sub> (Total): Monitored by stack emission testing at the approved frequency, based on the average of three Department validated stack test runs The owner or operator shall conduct an initial performance test as required in 40 CFR 60.8. Annual testing shall be conducted thereafter (within 14 months following the previous performance test) unless the test results for the initial test are below 75% of the emission limit for NO<sub>x</sub>, when the test frequency may be reduced to every two years (within 26 months following the previous performance test) . Test methods and procedures shall be consistent with the requirements of 40 CFR 60.4400 or, if a NO<sub>x</sub> diluent CEMS is installed, consistent with 40 CFR 60.4405. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Alternatively, the testing might be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. [40 CFR 60.4400]</p>	<p>NO<sub>x</sub> (Total): Recordkeeping by stack test results at the approved frequency. [40 CFR 60.4460]</p>	<p>Submit a report: As per the approved schedule. The owner or operator shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)]</p>
24	<p>SO<sub>2</sub> ≤ 0.06 lb/MMBTU. No owner or operator shall burn any fuel which contains total potential sulfur emissions in excess of specified limit. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [40 CFR 60.4330(a)(2)]</p>	<p>SO<sub>2</sub>: Monitored by grab sampling once initially. Test methods and procedures shall be consistent with 40 CFR 60.4415(a)(1). The fuel analyses may be performed by the owner or operator, the fuel vendor, or any other qualified agency. [40 CFR 60.4360]</p>	<p>None.</p>	<p>Submit a report: Once initially. The permittee shall furnish the Administrator and NJDEP a written report of the results of fuel analyses. The permittee shall demonstrate that the potential sulfur emissions from each type of fuel do not exceed potential sulfur emissions of 0.060 lb SO<sub>2</sub> per MMBtu heat input. [40 CFR 60.8(a)]</p>
25	<p>Sulfur Content in Fuel ≤ 0.0015 % by weight. [N.J.A.C. 7:27- 9.2(b)]</p>	<p>Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Sulfur Content in Fuel: Recordkeeping by fuel certification receipts per delivery. [N.J.A.C. 7:27-22.16(o)]</p>	<p>None.</p>
26	<p>Turbine fuel limited to ultra low sulfur distillate fuel oil (ULSD) [sulfur content ≤ 15 ppm]. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by review of fuel delivery records per delivery . [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by fuel certification receipts per delivery. [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
27	Hours of Operation While Firing Fuel Oil <= 500 hr/yr. Unit 11 may be operated using this scenario, in lieu of OS2, when NOx emission concentrations are <= 3.5 ppmvd@15%O <sub>2</sub> . [N.J.A.C. 7:27-22.16(a)]	Hours of Operation While Firing Fuel Oil: Monitored by hour/time monitor daily, based on a consecutive 365 day period (rolling 1 day basis). The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation While Firing Fuel Oil: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. A record shall be made for each period that light distillate fuel oil is burned. Each record shall show the date, start time, end time, and the amount of fuel consumed. [N.J.A.C. 7:27-22.16(o)]	None.
28	NOx (Total) <= 8.27 lb/hr. Based on method 19 calculations, a NOx concentration of 3.5 ppm, and a maximum hourly heat input of 608 MMBtu/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 U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (see U11 / 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 quarter year (the quarter years 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)]
29	NOx (Total) <= 8.27 lb/hr. Based on method 19 calculations, a NOx concentration of 3.5 ppm, and a maximum hourly heat input of 608 MMBtu/hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary .). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results at the approved frequency and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
30	CO <= 7.2 lb/hr. Based on method 19 calculations, a CO concentration of 5 ppm, and a maximum hourly heat input of 608 MMBtu/hr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average. (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by by data acquisition system (DAS) / electronic data storage continuously. (see U11 / 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 quarter year (the quarter years 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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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	CO <= 7.2 lb/hr. Based on method 19 calculations, a CO concentration of 5 ppm, and a maximum hourly heat input of 608 MMBtu/hr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and prior to permit expiration date, based on the average of three Department validated stack test runs. Annual periodic emission monitoring may be performed in lieu of permit renewal stack testing, if the unit is operated as a "peaking unit" as defined at 40 CFR 75. (see U11, OS Summary .). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results at the approved frequency , and/or by periodic emission monitoring results annually, if the unit is operated as a "peaking unit". (see U11, 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 and/or submit annual periodic emission monitoring report if the unit is operated as a "peaking unit". (see U11, OS Summary). [N.J.A.C. 7:27-22.16(o)]
32	HAPs (Total) <= 3.6 lb/hr. Hourly emission limit, based on the sum of all reported HAPS. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
33	Acetaldehyde <= 0.3 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.93 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
34	Acetophenone <= 0.031 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.10 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
35	Acrolein <= 0.0407 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 6.69 E-5 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
36	Benzene <= 0.231 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 3.80 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
37	Biphenyl <= 0.00591 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 9.72 E-6 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
38	Butadiene (1,3-) <= 0.0000302 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.97 E-8 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	Dioxins/Furans (TEQ) $\leq 4.66\text{E-}7$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $7.67\text{E-}10$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
40	Ethylbenzene $\leq 0.034$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $5.59\text{E-}05$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
41	Hexane (n-) $\leq 0.224$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $3.69\text{E-}04$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
42	Formaldehyde $\leq 0.687$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $1.13\text{E-}03$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
43	Naphthalene $\leq 0.122$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $2.01\text{E-}04$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
44	Propylene oxide $\leq 0.258$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $4.25\text{E-}04$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
45	Styrene $\leq 0.0359$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $5.90\text{E-}5$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
46	Toluene $\leq 0.0273$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $4.49\text{E-}05$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
47	Polycyclic organic matter $\leq 0.167$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $2.75\text{E-}04$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
48	Methylnaphthalene (2-) <= 0.00316 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 5.20 E-06 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
49	Acenaphthene <= 0.000246 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 4.04 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
50	Benzo (A) Pyrene Emissions <= 0.000128 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.11 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
51	Benzo(b)fluoranthene <= 0.000165 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.72 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
52	Fluorene <= 0.000154 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.54 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
53	Indeno(1,2,3-cd)pyrene <= 0.0000162 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.66 E-08 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
54	Phenanthrene <= 0.00906 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 1.49 E-05 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
55	Pyrene <= 0.000168 lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 2.76 E-07 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
56	Arsenic compounds $\leq 0.00669$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $1.10 \text{ E-}5$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
57	Beryllium compounds $\leq 0.00182$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $3.0 \text{ E-}6$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
58	Cadmium compounds $\leq 0.00669$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $1.10 \text{ E-}5$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
59	Chromium (Hexavalent) Emissions $\leq 0.000073$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $1.2 \text{ E-}7$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
60	Chromium compounds $\leq 0.472$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $7.74 \text{ E-}4$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
61	Cobalt compounds $\leq 0.017$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $2.79 \text{ E-}5$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
62	Lead compounds $\leq 0.0117$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $1.93 \text{ E-}5$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
63	Manganese compounds $\leq 0.48$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $7.9 \text{ E-}4$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
64	Mercury Emissions $\leq 0.00182$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of $3.0 \text{ E-}6$ lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
65	Nickel compounds $\leq 0.441$ lb/hr. Hourly emission limit based on a heat input of 608 MMBtu/hr and an emission factor of 7.25 E-4 lb/MMBtu. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
66	Maximum Gross Heat Input $\leq 608$ MMBTU/hr (HHV) while firing ULSD fuel oil. . [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Emission Unit: U14 Bottom Ash Silo

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 0.073 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	PM-10 (Total) <= 0.073 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Total Material Transferred <= 2,190 tons/yr of bottom ash processed. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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**Emission Unit:** U14 Bottom Ash Silo**Operating Scenario:** OS1 storage of bottom ash in silo

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. Maximum allowable emission rate for particulates. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	Maximum Air-to-Cloth Ratio <= 3:1. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Bag fabric shall be 16 oz. Polyester, or equivalent. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Maximum Operating Exhaust Gas Flow Rate <= 84 acfm [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum Inlet Temperature to Baghouse <= 200 degrees F. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Method of bag cleaning shall be by pulse jet. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [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 shall record each instance of bag cleaning and bag replacement. [N.J.A.C. 7:27-22.16(o)]	None.
8	TSP <= 0.4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	PM-10 (Total) <= 0.4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	Total Material Transferred <= 12,000 lb/hr of bottom ash processed. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	<p>Monitored by visual determination each month during operation. Conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes:</p> <p>(1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the opacity problem is not corrected within 24 hours, perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Conduct such test each day until the opacity problem is successfully corrected. [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 each month during operation. Record and retain the following:</p> <p>(1) Date and time of inspection;  (2) Emission Point number;  (3) Operational status of equipment;  (4) Observed results and conclusions;  (5) Description of corrective action taken if needed;  (6) Date and time opacity problem was solved, if applicable;  (7) N.J.A.C. 7:27B-2 results if conducted; and  (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]</p>	None.



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Emission Unit: U15 Fly Ash Silo

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 1.44 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	PM-10 (Total) <= 1.44 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Total Material Transferred <= 10,512 tons/yr of fly ash processed. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Emission Unit: U15 Fly Ash Silo

Operating Scenario: OS1 Storage of fly ash in silo

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 1.6 lb/hr. Maximum allowable emission rate for particulates. [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	Maximum Air-to-Cloth Ratio <= 3:1. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Bag fabric shall be 16 oz. Polyester, or equivalent. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Maximum Operating Exhaust Gas Flow Rate <= 800 acfm [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum Inlet Temperature to Baghouse <= 200 degrees F. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Method of bag cleaning shall be by pulse jet. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter upon occurrence of event. The permittee shall record each instance of bag cleaning and bag replacement. [N.J.A.C. 7:27-22.16(a)]	None.
8	TSP <= 1.6 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	PM-10 (Total) <= 1.6 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	Total Material Transferred <= 9,600 lb/hr of fly ash processed. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	<p>Monitored by visual determination each month during operation. Conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes:</p> <p>(1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the opacity problem is not corrected within 24 hours, perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Conduct such test each day until the opacity problem is successfully corrected. [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 each month during operation. Record and retain the following:</p> <p>(1) Date and time of inspection;  (2) Emission Point number;  (3) Operational status of equipment;  (4) Observed results and conclusions;  (5) Description of corrective action taken if needed;  (6) Date and time opacity problem was solved, if applicable;  (7) N.J.A.C. 7:27B-2 results if conducted; and  (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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

Emission Unit: U22 Emergency Generator

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 63, Subpart ZZZZ. [40 CFR Federal Rules Summary]	None.	None.	None.
2	NOx (Total) <= 0.695 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	CO <= 0.135 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	VOC (Total) <= 0.045 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 0.035 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.065 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 0.065 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	Pb <= 0.0006 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Opacity <= 20 % , exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
10	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
11	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.

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New Jersey Department of Environmental Protection  
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	Generator fuel limited to natural gas, # 2 fuel oil or diesel fuel. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	<p>Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only:</p> <ol style="list-style-type: none"> <li>1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation,</li> <li>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or</li> <li>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1]</li> </ol>	<p>Monitored by hour/time monitor continuously.</p> <p>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; and the total fuel usage calculated by the following:</p> <p>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).</p> <p>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing or maintenance). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The owner or operator shall maintain on site and record the following information:</p> <ol style="list-style-type: none"> <li>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month) and the hours of operation for emergency use (per month). Document if the emergency use was due to internal or external loss of primary source of energy. If internal loss at the facility, document the emergency that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</li> <li>2. For each time the emergency generator is specifically operated for testing or maintenance: <ol style="list-style-type: none"> <li>i. The reason for its operation;</li> <li>ii. The date(s) of operation and the start up and shut down time;</li> <li>iii. The total operating time for testing or maintenance based on the generator's hour meter; and</li> <li>iv. The name of the operator; and</li> </ol> </li> <li>3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.</li> </ol> <p>The owner or operator of an emergency generator shall maintain the above records for a period no less than 5 years after the record was made and shall make the records readily available to the Department or the EPA upon request. [N.J.A.C. 7:27-22.16(o)] and. [N.J.A.C. 7:27-19.11]</p>	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	The owner or operator shall submit an annual statement certified in accordance with N.J.A.C. 7:27-1.39 and signed by the responsible official, as defined at N.J.A.C. 7:27-1.4. The Responsible Official shall certify annually that the emergency generator is operated as defined in this permit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submit an Annual Compliance Certification: Annually to the Department and EPA within 60 days after the end of each calendar year. [N.J.A.C. 7:27-22]
15	This emergency generator shall not be used: 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at <a href="http://airnow.gov/">http://airnow.gov/</a> , as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at <a href="http://www.state.nj.us/dep/aqpp/aqforecast">http://www.state.nj.us/dep/aqpp/aqforecast</a> ; and 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information:  For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator. [N.J.A.C. 7:27-19.11]	None.
17	Maximum Gross Heat Input <= 2.3 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	Other: Engine Rated Capacity. [N.J.A.C. 7:27-22.16(o)].	None.	None.



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

Emission Unit: U22 Emergency Generator

Operating Scenario: OS1 Emergency power generation through firing of No. 2 FO

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % Visible emissions shall not be greater than 20%, exclusive of condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27- 3.5]	None.	None.	None.
2	Particulate Emissions <= 1.38 lb/hr. Maximum allowable particulate emission rate 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	Sulfur Content in Fuel <= 0.3 % by weight. Maximum allowable sulfur content in No. 2 fuel oil by fuel oil type/viscosity and geographical zone. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. Sulfur content must be indicated on the delivery records. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading per delivery. Keep certificate of analysis showing fuel sulfur content. [N.J.A.C. 7:27- 9.2(b)]	None.
4	Maximum Gross Heat Input <= 2.3 MMBTU/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Fuel use limited to distillate fuel oil. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Fuel Oil Usage <= 145,000 gallons. [N.J.A.C. 7:27-22.16(a)]	Other: Fuel flow/firing rate instrument, continuously[N.J.A.C. 7:27-22.16(o)].	Fuel Oil Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
7	NOx (Total) <= 13.9 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	CO <= 2.7 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	VOC (Total) <= 0.9 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	SO2 <= 0.7 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	TSP <= 1.3 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-10 (Total) <= 1.3 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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**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 an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall change oil and filter every 500 hours of operation or annually, whichever comes first, as prescribed in Table 2d, item 4a to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)]	Other: The owner or operator shall change oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator has an option of utilizing an oil analysis program, at the same frequency specified for changing the oil, in order to extend the specified oil change requirement, per 40 CFR 63.6625(j). The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the oil and filter change. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)]	None.
14	The owner or operator of an emergency or black start CI RICE constructed or reconstructed before June 12, 2006 shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, as prescribed in Table 2d, item 4b and 4c to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6603(a)]	Other: The owner or operator shall inspect air cleaner every 1000 hours or annually, whichever comes first and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must keep records of the maintenance procedures and air cleaner, belt and hoses replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)(2)]	None.
15	The engine must be in compliance with all applicable emission limitations and operating limitations in Subpart ZZZZ of 40 CFR 63 at all times. [40 CFR 63.6605(a)]	None.	None.	None.
16	At all times the owner or operate must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605(b)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	An owner or operator of an existing stationary emergency or black start RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or the owner or operator must develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]	Other: Monitored according to the manufacturer's emission-related written instructions or the maintenance plan developed by the owner or operator. [40 CFR 63.6625(e)].	Other: The owner or operator must keep records of the maintenance procedures. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)].	None.
18	The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]	Other: The owner or operator must develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, in accordance with Table 6 item 9 to Subpart ZZZZ of 40 CFR 63. [40 CFR 63.6640(a)].	Other: The owner or operator must keep records of the maintenance procedures and replacements events. Each record must be readily accessible for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.6660(c) and 40 CFR 63.10(b)(1). [40 CFR 63.6655(e)].	None.
19	The owner or operator may operate an emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2i)]	Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)(2)]	None.

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New Jersey Department of Environmental Protection  
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing emergency or black start CI RICE constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions except for a residential, commercial, or institutional emergency stationary RICE. [40 CFR 63.6665]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Profile (General)

**Facility Name (AIMS):** VMEU - Down Station

**Facility ID (AIMS):** 75507

**Street** 211 N. West Ave.  
**Address:** Vineland, NJ 08360

**Mailing** 640 E. Wood St.  
**Address:** PO Box 1508  
Vineland, NJ 08362-1508

**County:** Cumberland  
**Location** Power plant located one block off Delsea Dr.  
**Description:** Go east on Landis from Delsea, then north on West Ave. to plant.

<b>State Plane Coordinates:</b>	
<b>X-Coordinate:</b>	497
<b>Y-Coordinate:</b>	4,371
<b>Units:</b>	Feet
<b>Datum:</b>	NAD27
<b>Source Org.:</b>	Other/Unknown
<b>Source Type:</b>	Hard Copy Map

<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:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** Lisa A. Fleming

**NJ EIN:** 00216001670

**Title:** Sup. Environmental Health Specialist

**Phone:** (856) 794-4000 x4163

**Mailing Address:** 211 N. West Ave

**Fax:** (856) 405-4625 x

P.O. Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** lfleming@vinelandcity.org

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**Contact Type: BOP - Operating Permits**

**Organization:** NJDEP

**Org. Type:** State

**Name:** Shafi Ahmed

**NJ EIN:**

**Title:** Environmental Engineer 3

**Phone:** (609) 633-2971 x

**Mailing Address:** Mail Code 401-02, P.O. Box 420

**Fax:** (609) 292-1028 x

DEP Air Quality Program

**Other:** ( ) - x

401 East State Street, 2nd floor

**Type:**

Trenton, NJ 08625-0420

**Email:** shafi.ahmed@dep.nj.gov

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**Contact Type: Emission Statements**

**Organization:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** Lisa Fleming

**NJ EIN:** 00216001670

**Title:** Sup. Environmental Specialist

**Phone:** (856) 794-4000 x4163

**Mailing Address:** 211 N. West Ave

**Fax:** (856) 405-4625 x

P.O. Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** jdavis@vinelandcity.org

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

**Contact Type: Fees/Billing Contact**

**Organization:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** Lisa Fleming

**NJ EIN:** 00216001670

**Title:** Sup. Environmental Specialist

**Phone:** (856) 794-4000 x4163

**Mailing Address:** 211 N. West Ave

**Fax:** (856) 405-4625 x

P.O. Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** damico@vinelandcity.org

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**Contact Type: General Contact**

**Organization:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** Lisa Fleming

**NJ EIN:** 00216001670

**Title:** Sup. Environmental Specialist

**Phone:** (856) 794-4000 x

**Mailing Address:** 211 N. West Ave

**Fax:** (856) 405-4625 x

P.O. Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** jdavis@vinelandcity.org

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**Contact Type: On-Site Manager**

**Organization:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** John Miller

**NJ EIN:** 00216001670

**Title:** Asst. Supt. - Generation

**Phone:** (856) 794-4000 x4354

**Mailing Address:** 211 N. West Ave.

**Fax:** (856) 405-4626 x

P.O. Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** jmill@vinelandcity.org

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

**Contact Type: Operator**

**Organization:** City of Vineland

**Org. Type:** Municipal

**Name:** Anthony Fanucci

**NJ EIN:** 00216001670

**Title:** Mayor

**Phone:** (856) 794-4000 x4010

**Mailing Address:** 640 E. Wood St.

**Fax:** (856) 405-4622 x

PO Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** afanucci@vinelandcity.org

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

**Organization:** City of Vineland

**Org. Type:** Municipal

**Name:** Anthony Fanucci

**NJ EIN:** 00216001670

**Title:** Mayor

**Phone:** (856) 794-4000 x4010

**Mailing Address:** 640 E. Wood St.

**Fax:** ( ) - x

PO Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** afanucci@vinelandcity.org

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**Contact Type: Responsible Official**

**Organization:** City of Vineland, Municipal Electric Utility

**Org. Type:** Municipal

**Name:** John Lillie

**NJ EIN:** 00216001670

**Title:** Director, Vineland Municipal Utilities

**Phone:** (856) 794-4000 x4164

**Mailing Address:** 640 E. Wood St.

**Fax:** (856) 405-4622 x

PO Box 1508

**Other:** ( ) - x

Vineland, NJ 08362-1508

**Type:**

**Email:** jlillie@vinelandcity.org



**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	small heaters (<1MMBtu/hr) - Small space heaters	Fuel Combustion Equipment (Other)	main plant building / outbuildings	0.072	1.310	1.100	0.010	0.025	0.100	0.000		0.000
IS2	lubricating oil systems	Other Equipment	basement / Unit 11 turbine housing	0.003								
IS3	small storage tanks - No. 2 FO, kerosene, water treatment chem.	Storage Vessel	basement and loading area	0.005								0.000
IS4	internal fuel oil pipelines	Other Equipment	within plant / turbine housing	1.200								
IS5	waste oil handling	Other Equipment	within plant / turbine housing / Aux buildings	0.028								
IS6	Parts cleaners	Cleaning Machine (Open Top: Cold)	within plant	0.210								
IS9	use of equipment paints and electrical and cleaning solvents	Other Equipment	within plant / Unit 11 buildings	0.030							2.53000000	
IS11	chlorine cylinder handling	Other Equipment	chlorine buildings								0.00200000	
IS12	settling basins	Storage Vessel	main unloading area	0.000								
IS14	transformers	Other Equipment	Plant / Unit 11 grounds and buildings	0.000								
Total				5.961	2.040	1.680	0.140	0.039	0.160	0.000	2.53200000	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>
E11	Unit 11	Turbine Unit No. 11	Combustion Turbine		1/1/2012	No		
E14	BA Silo	Unit 10 bottom ash silo	Storage Vessel	087631	1/1/1952	No	9/14/1988	
E15	FA Silo	Unit 10 fly ash silo	Storage Vessel	087632	1/1/1969	No	9/14/1988	
E18	Tank No.2	ULSD Fuel Oil Tank (675K)	Storage Vessel		1/1/1972	Yes		
E19	Tank No.4	10 day tank (20K No.6 Fuel Oil)	Storage Vessel	003649	1/1/1970	No		
E20	Tank No.5	8 day tank (20K No.6 Fuel Oil)	Storage Vessel		1/1/1955	Yes		
E21	Tank No.6	10 day tank (20K No.2 Fuel Oil)	Storage Vessel		1/1/1970			
E22	EmerGen	Emergency Generator	Fuel Combustion Equipment (Other)		1/1/1969	No		

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E11 (Combustion Turbine)  
Print Date: 4/9/2024

Make:			
Manufacturer:	Rolls Royce		
Model:	Trent 60		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	628.00		
Type of Turbine:	Industrial		
Type of Cycle:	Simple-Cycle	Description:	
Industrial Application:	Electrical Generator	Description:	
Power Output:	64.00	Units:	Megawatts
Is the combustion turbine using (check all that apply):			
A Dry Low NOx Combustor:	<input checked="" type="checkbox"/>		
Steam Injection:	<input type="checkbox"/>	Steam to Fuel Ratio:	
Water Injection:	<input checked="" type="checkbox"/>	Water to Fuel Ratio:	
Other:	<input type="checkbox"/>	Description:	
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 checked="" type="radio"/> Yes <input type="radio"/> No		
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?		
	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Comments:	64 MW Output at 30 deg F Reference Temperature 1.109 water to fuel ratio when gas fired 0.973 water to fuel ratio when ULSD fired		

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E14 (Storage Vessel)  
Print Date: 4/9/2024

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

Solids Only

Storage Vessel Type:

Silo

Design Capacity:

3,700

Units:

ft^3

Ground Location:

Above Ground

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)(ft2)(deg F)]:

Shape of Storage Vessel:

Cylindrical

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

24.00

Length (ft):

Width (ft):

Diameter (ft):

14.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

11.00

Units:

ft^3/min

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

Roof

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

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:

diagram submitted with paper application  
11/1995

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E15 (Storage Vessel)  
Print Date: 4/9/2024

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

Solids Only

Storage Vessel Type:

Silo

Design Capacity:

8,650

Units:

ft^3

Ground Location:

Above Ground

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)(ft2)(deg F)]:

Shape of Storage Vessel:

Cylindrical

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

34.00

Length (ft):

Width (ft):

Diameter (ft):

18.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

11.00

Units:

ft^3/min

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

Roof

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

**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E15 (Storage Vessel)**

**Print Date: 4/9/2024**

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:

diagram submitted with paper application  
11/1995

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E18 (Storage Vessel)  
Print Date: 4/9/2024

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

675,000

Units:

gallons

Ground Location:

Above Ground

Is the Shell of the Equipment

Yes

Exposed to Sunlight?

Shell Color:

White

Description (if other):

Shell Condition:

Paint Condition:

Good

Shell Construction:

Welded

Is the Shell Insulated?

No

Type of Insulation:

Insulation Thickness (in):

Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:

Shape of Storage Vessel:

Cylindrical

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

36.80

Length (ft):

Width (ft):

Diameter (ft):

56.50

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

250.00

Units:

gal/min

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

Roof

Roof Type:

Domed vertical fixed roof tank

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

1.75

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel have a Vapor Return Loop?

No

Does the storage vessel



**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E18 (Storage Vessel)**

**Print Date: 4/9/2024**

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:

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E19 (Storage Vessel)  
Print Date: 4/9/2024

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

20,000

Units:

gallons

Ground Location:

Below Ground

Is the Shell of the Equipment

No

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(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:

gal/min

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?

No

Does the storage vessel

**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E19 (Storage Vessel)**

**Print Date: 4/9/2024**

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:

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E20 (Storage Vessel)  
Print Date: 4/9/2024

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

20,000

Units:

gallons

Ground Location:

Below Ground

Is the Shell of the Equipment

No

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

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:

gal/min

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?

No

Does the storage vessel

**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E20 (Storage Vessel)**

**Print Date: 4/9/2024**

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:

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E21 (Storage Vessel)  
Print Date: 4/9/2024

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

20,000

Units:

gallons

Ground Location:

Below Ground

Is the Shell of the Equipment

No

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

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:

gal/min

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?

No

Does the storage vessel

**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 E21 (Storage Vessel)**

**Print Date: 4/9/2024**

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:

BOP190002

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

<b>CD NJID</b>	<b>Facility's Designation</b>	<b>Description</b>	<b>CD Type</b>	<b>Install Date</b>	<b>Grand-Fathered</b>	<b>Last Mod. (Since 1968)</b>	<b>CD Set ID</b>
CD17	BA-BVF	Bottom ash bin vent filter	Other	9/14/1988	No		
CD18	FA-BVF	Fly ash bin vent filter	Other	9/14/1988	No		
CD19	SCR-11	Selective Catalytic Reduction for Unit No. 11	Selective Catalytic Reduction	2/1/2012	No		
CD20	Ox Cat-11	Oxidation Catalyst for Unit No. 11	Oxidizer (Catalytic)	2/1/2012	No		
CD21	H2O-11	Water Injection system for Unit 11	Other	1/1/2012	No		



Print Date: 4/9/2024

Make:	
Manufacturer:	Ultra Industries
Model:	BB-4-58-IIG
Maximum Air Flow Rate to Control Device (acfm):	84
Maximum Temperature of Vapor Stream to Control Device (°F):	400
Minimum Temperature of Vapor Stream to Control Device (°F):	
Minimum Moisture Content of Vapor Stream to Control Device (%):	
Minimum Pressure Drop Across Control Device (in. H2O):	
Maximum Pressure Drop Across Control Device (in. H2O):	
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:	None
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 checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	Schematic of source and control device was submitted with original paper application in 1995.

Print Date: 4/9/2024

Make:	
Manufacturer:	Ultra Industries
Model:	BB-25-84-II
Maximum Air Flow Rate to Control Device (acfm):	800
Maximum Temperature of Vapor Stream to Control Device (°F):	400
Minimum Temperature of Vapor Stream to Control Device (°F):	
Minimum Moisture Content of Vapor Stream to Control Device (%):	
Minimum Pressure Drop Across Control Device (in. H2O):	
Maximum Pressure Drop Across Control Device (in. H2O):	
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:	None
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 checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	Schematic of source and control device was submitted with original paper application in 1995.

75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 CD19 (Selective Catalytic Reduction)  
Print Date: 4/9/2024

Make:	
Manufacturer:	Peerless Mfg. Co.
Model:	EDGE AIG (ammonoa injection grid)
Minimum Temperature at Catalyst Bed (°F):	450
Maximum Temperature at Catalyst Bed (°F):	800
Minimum Temperature at Reagent Injection Point (°F):	500
Maximum Temperature at Reagent Injection Point (°F):	800
Type of Reagent:	Ammonia
Description:	
Chemical Formula of Reagent:	
Minimum Reagent Charge Rate (gpm):	0.2
Maximum Reagent Charge Rate (gpm):	0.4
Minimum Concentration of Reagent in Solution (% Volume):	19
Minimum NOx to Reagent Mole Ratio:	1
Maximum NOx to Reagent Mole Ratio:	
Maximum Anticipated Ammonia Slip (ppm):	5
Type of Catalyst:	corrugated - vanadium, tungsten, titanium oxides
Volume of Catalyst (ft³):	1160
Form of Catalyst:	Modules
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:	CEMS
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<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

**75507 VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN BOP190002 CD19 (Selective Catalytic Reduction)**  
**Print Date: 4/9/2024**

Comments:

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

Make:	CAMET CO Catalyst
Manufacturer:	BASF
Model:	
Minimum Inlet Temperature (°F):	450
Maximum Inlet Temperature (°F)	800
Minimum Outlet Temperature (°F)	450
Maximum Outlet Temperature (°F):	800
Minimum Residence Time (sec)	0.01
Fuel Type:	
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Minimum Pressure Drop Across Catalyst (psi):	0.05
Maximum Pressure Drop Across Catalyst (psi):	
Catalyst Material:	Platinum group metals, alumina, steel
Form of Catalyst:	Honeycomb
Description:	
Minimum Expected Life of Catalyst:	3
Units:	Years
Volume of Catalyst (ft³):	125
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	CEMS
Have you attached data from recent performance testing?	<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:	Minimum Residence Time = 0.002 seconds Volume of Catalyst shown is an approximate minimum (catalyst modules can vary). >3 Years expected Catalyst Life.

VINELAND MUNICIPAL ELEC UTIL HOWARD M. DOWN (75507)

Date: 4/9/2024

BOP190002

**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.		
PT2	TNK2VENT	TANK2VENT	Round	8	38	120	125.0	110.0	130.0	10.0	0.0	33.0	Down	
PT4	10DAYVNT	10DAYVNT	Round	6	20	10	125.0	110.0	130.0	10.0	0.0	33.0	Down	
PT5	8DAYVNT	8DAYVNT	Round	6	7	80	125.0	110.0	130.0	10.0	0.0	33.0	Up	
PT6	10IGVNT	10IGVNT	Round	6	25	22	60.0	0.0	120.0	10.0	0.0	15.0	Down	
PT11	Unit No. 11	Unit No. 11 Stack	Round	143	135	120	750.0	690.0	850.0	795,000.0	627,000.0	850,000.0	Up	
PT14	BA-SILO	bottom ash silo vent	Round	6	55	107	200.0			80.0	60.0	84.0	Horizontal	
PT15	FA-SILO	fly ash silo vent	Round	6	66	62	200.0			700.0	300.0	800.0	Horizontal	
PT22	genstck	emergency generator stack	Round	8	56	80	350.0			950.0	450.0	1,000.0	Up	

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

U 1    LargeTnks    Large fuel oil storage tanks

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.
OS4	TnkNo.2	Tank No. 2 (675,000 gallons) storing ultra-low sulfur distillate fuel oil	Normal - Steady State	E18		PT2								

U 2    DayTnks    No.6 and No.2 fuel oil storage day tanks

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	10day	20,000 gallons No. 6 fuel oil tank	Normal - Steady State	E19		PT4								
OS2	8day	20,000 gallons No. 6 fuel oil tank	Normal - Steady State	E20		PT5								
OS3	10IGNIT	20,000 gallons No. 2 fuel oil tank	Normal - Steady State	E21		PT6								

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

U 11 Unit 11 Gas Turbine - Unit 11

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	Turbine-NG	Unit 11 Firing Natural Gas	Normal - Steady State	E11	CD19 (S) CD20 (P) CD21 (P)	PT11	2-01-001-02 2-01-002-01	0.0	8,760.0		644,000.0	850,000.0	690.0	850.0
OS2	Turbine-FO	Firing ULSD, <=5ppm NOx emissions	Normal - Steady State	E11	CD19 (S) CD20 (P) CD21 (P)	PT11	2-01-001-01	0.0	500.0		627,000.0	850,000.0	690.0	850.0
OS3	Turbine-FO	Firing ULSD, <=3.5ppm NOx emissions	Normal - Steady State	E11	CD19 (S) CD20 (P) CD21 (P)	PT11	2-01-001-01	0.0	500.0		627,000.0	850,000.0	690.0	850.0

U 14 BA Silo Bottom Ash Silo

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	BA-store	storage of bottom ash in silo	Normal - Steady State	E14	CD17 (P)	PT14	4-03-011-97	0.0	8,760.0		60.0	84.0	100.0	250.0



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

U 15   FA Silo   Fly Ash Silo

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	FA-store	Storage of fly ash in silo	Normal - Steady State	E15	CD18 (P)	PT15	4-03-011-97	0.0	8,760.0		300.0	800.0	100.0	250.0

U 22   Emer Gen   Emergency Generator

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	Emer. Gen.	Emergency power generation through firing of No. 2 FO	Normal - Steady State	E22		PT22	2-01-001-02	0.0	8,760.0		450.0	1,000.0	200.0	400.0

Date: 4/9/2024

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

**Group NJID:** GR1 RRG1 Rules

**Members:**

Type	ID	OS	Step
U	U 11	OS0 Summary	
U	U 11	OS1 Turbine-NG	

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

☒ Other

**Other (explain):**

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

**Operating Circumstances:**

**Group NJID:** GR2 PACT Rules

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

☒ Other

**Other (explain):** PACT Rules

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

**Operating Circumstances:**

# **Appendix I**

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

- **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**

## **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 BBBBB 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 BBBBB.

(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 BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A TR NO<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 BBBBB.
- (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

**(e) Additional recordkeeping and reporting requirements.**

- (1) Unless otherwise provided, the owners and operators of each TR NO<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 BBBB.
  - (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.



## State of New Jersey

PHILIP D. MURPHY  
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SHAWN M. LATOURETTE  
Commissioner

TAHESHA L. WAY  
Lt. Governor

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

### Appendix II: PHASE II ACID RAIN PERMIT

Issued to: Vineland Municipal Electric Utility – Howard M. Down Station  
211 N. West Avenue  
Vineland, NJ 08360

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

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

ORIS Code: 2434

Effective through the Operating Permit Expiration Date.

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

Approved by:

A handwritten signature in black ink that reads "Joel Leon".

Joel Leon  
Section Chief  
Bureau of Stationary Sources



## **ACID RAIN PERMIT CONTENTS**

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

**1) Statement of Basis**

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

**2) Unit Specific Requirements**

Refer to 40 CFR 72 for specific requirements.

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

This facility is subject to the Operating Permit regulations promulgated at N.J.A.C. 7:27-22. Therefore, the facility must obtain an Operating Permit. The 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.

# Acid Rain Permit Application

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

This submission is: ☐ new ☐ revised ☒ for ARP permit renewal

## STEP 1

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

Facility (Source) Name	Howard M Down	State	NJ	Plant Code	2434
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## STEP 2

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

[illegible]

Facility (Source) Name (from STEP 1) <b>Howard M Down</b>
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**STEP 3****Permit Requirements****Read the standard requirements.**

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

**Monitoring Requirements**

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

**Sulfur Dioxide Requirements**

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

**Nitrogen Oxides Requirements**

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

Facility (Source) Name (from STEP 1)	Howard M Down
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**STEP 3, Cont'd.****Excess Emissions Requirements**

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

**Recordkeeping and Reporting Requirements**

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

**Liability**

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

Facility (Source) Name (from STEP 1) <b>Howard M Down</b>
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**STEP 3, Cont'd.****Effect on Other Authorities**

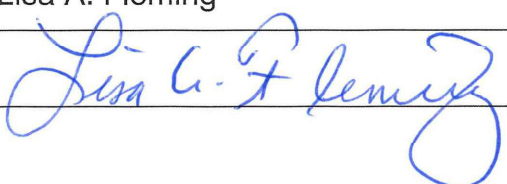
No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (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	Lisa A. Fleming	
Signature		Date 06/21/19