



## 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

**Permit Activity Number: BOP190002**

**Program Interest Number: 17913**

Mailing Address	Plant Location
GARRICK STOLDT CHIEF FINANCIAL OFFICER ST PETERS UNIVERSITY HOSPITAL RAD DEPT 254 EASTON AVE New Brunswick, NJ 08901	SAINT PETER'S UNIVERSITY HOSPITAL 254 Easton Ave New Brunswick Middlesex County

**Initial Operating Permit Approval Date: February 27, 2001**

**Operating Permit Approval Date: PROPOSED**

**Operating Permit Expiration Date:**

#### **AUTHORITY AND APPLICABILITY**

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

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

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

#### **PERMIT SHIELD**

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

#### **COMPLIANCE SCHEDULES**

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

## **COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS**

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

## **ACCESSING PERMITS**

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

## **HELPLINE**

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

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

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

## **COMPLIANCE ASSURANCE MONITORING**

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

## **ADMINISTRATIVE HEARING REQUEST**

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

If you have any questions regarding this permit approval, please call Darshil Bhavsar at (609) 940-5656.

Approved by:

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Christopher Schwalje

Enclosure

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

**Facility Name: SAINT PETER'S UNIVERSITY HOSPITAL**  
**Program Interest Number: 17913**  
**Permit Activity Number: BOP190002**

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## Section A

**Facility Name: SAINT PETER'S UNIVERSITY HOSPITAL**

**Program Interest Number: 17913**

**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	6.32	33.87	34.13	0.44	2.15	2.14	2.14	N/A	1.38	
Batch Process Summary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Group Summary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Emissions	6.32	33.87	34.13	0.44	2.15	2.14	2.14	N/A	1.38	76,293

Table 2: Estimate of total emissions from all Insignificant Source Operations<sup>1</sup> and total emissions from Non-Source Fugitives at the facility.

Emissions from all Insignificant Source Operations and Non-Source Fugitive Emissions (tons per year)									
Source Categories	VOC (total)	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP (total)	PM <sub>10</sub> (total)	PM <sub>2.5</sub> (total)	Pb	HAPs (total)
Insignificant Source Operations	N/A	N/A	N/A	N/A	3.27	3.27	3.27	N/A	N/A
Non-Source Fugitive Emissions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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: SAINT PETER'S UNIVERSITY HOSPITAL**  
**Program Interest Number: 17913**  
**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	0.142
Acrolein	0.126
Arsenic	0.00005148
Benzene	0.0108
Butadiene (1, 3-)	0.00656
Cadmium	0.0002834
Cobalt	0.00002167
(7, 12-) Dimethylbenz(a)anthracene	0.000004119
Ethylene dibromide	0.00109
Formaldehyde	1.08927
Napthalene	0.00183
Nickel	0.000446
(1,1,2,2-) Tetrachloroethane	0.000928

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

Other Air Contaminant	TPY
N/A	N/A

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<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.

## Section B

**Facility Name: SAINT PETER'S UNIVERSITY HOSPITAL**

**Program Interest Number: 17913**

**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”).
26. Testing every 5 years shall be defined as no later than the end of the 60<sup>th</sup> month after the first required and each subsequent stack test was completed for the new or modified source.

## Section C

**Facility Name: SAINT PETER'S UNIVERSITY HOSPITAL**

**Program Interest Number: 17913**

**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>
B	---	1	---
B	---	10b	---
D	FC	---	3
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## Section D

**Facility Name: SAINT PETER'S UNIVERSITY HOSPITAL**

**Program Interest Number: 17913**

**Permit Activity Number: BOP190002**

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

#### **FACILITY SPECIFIC REQUIREMENTS PAGE INDEX**

#### **Subject Item and Name**

#### **Page Number**

##### **Facility (FC):**

FC

1

##### **Insignificant Sources (IS):**

<b>IS NJID</b>	<b>IS Description</b>	
IS1	Cooling Towers (2)	7
IS2	12,000 Gallon #2 Fuel Oil Aboveground Storage Tanks (2)	8

##### **Emission Units (U):**

<b>U NJID</b>	<b>U Designation</b>	<b>U Description</b>	
U1	Boilers 1&2	Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural gas, backup fuel is #2 FO. Exempt from MACT Subpart JJJJJ and NSPS Sub Dc.	10
U3	Em Dsl G 4	Emergency Diesel Generator #4 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)	25
U4	Em Dsl G 5	Emergency Diesel Generator #5 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)	31
U5	Em Dsl G 3	Emergency Diesel Generator #3 (600 kW, 5.8 MMBtu/hr, Caterpillar Model 3412T)	37
U9	CB Boilers	Two 5.23 MMBtu/hr Package Boilers (Cleaver Brooks) venting into one stack	43
U10	Em Dsl G 6	Emergency Diesel Generator #6 (400 kW, 3.2 MMBtu/hr, Caterpillar Model 3406)	50
U11	Caterpillar	GOP-006 CHP Engine 2763 BHP	56

**SAINT PETER'S UNIVERSITY HOSPITAL (17913)**  
**BOP190002**

Date: 10/15/202

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

**Permit Being Modified**

**Permit Class:** BOP      **Number:** 200001

**Description  
of Modifications:**      The following changes were made to the permit during this renewal process:

1. Updated FC requirements in accordance with NJDEP policy
2. Incorporated Significant Modification activity BOP200001
3. Updated stack testing language
4. Added reportable PM-2.5 emissions for all units.
5. Updated language of existing requirements for completeness.

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

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Subject Item: IS1 Cooling Towers (2)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 %. exclusive of visible water vapor, except for 3 minutes in any consecutive 30 minute period. [N.J.A.C. 7:27-6.2(d)] &. [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
2	Water treatment chemicals containing hexavalent chromium shall not be added to the cooling tower circulating water. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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**Subject Item:** IS2 #2 Fuel Oil Storage Tanks (2) (>10,000 gal, Non-Applicable VOC with Vapor Pressure < 0.02 psia)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(a)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
2	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time 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(a)]	None.	None.	None.
3	The operating temperature of the tank shall not be greater than 350 degrees F. [N.J.A.C. 7:27-22.1]	None.	None.	None.
4	The vapor pressure of the liquid, excluding the vapor pressure of water, shall be less than 0.02 psia at the liquid's actual temperature or at 70 degrees F, whichever is higher. [N.J.A.C. 7:27-22.1]	None.	None.	None.
5	The tank or vessel shall have no visible emissions, exclusive of water vapor, to the outdoor atmosphere. [N.J.A.C. 7:27-22.1]	None.	None.	None.
6	The tank or vessel shall not emit any air contaminants which may cause an odor detectable outside the property boundaries of the facility. [N.J.A.C. 7:27-22.1]	None.	None.	None.
7	The tank or vessel shall not be subject to any NESHAPS, MACT, or NSPS air pollution control standards, excluding the NSPS requirements to maintain a record of the contents of the tank or vessel, the period of storage of these contents, and the maximum true vapor pressure of the liquid stored. [N.J.A.C. 7:27-22.1]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	The tank's or vessel's potential to emit each TXS and each HAP shall not exceed the de minimis reporting thresholds as specified in Appendix to N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.1]	None.	None.	None.
9	The percentage by weight of all HAPs collectively in the raw material stored in the tank, or mixed or blended in the vessel, shall be less than 1.0 percent. [N.J.A.C. 7:27-22.1]	None.	None.	None.
10	The owner or operator shall have readily available upon Department request a statement certified in accordance with N.J.A.C. 7-27-1.39, signed by the responsible official, as defined at N.J.A.C. 7:27-1.4, that: (1) specifies the contents of the tank; (2) affirms that the tank or vessel meets the above applicable requirements and (3) attests that the tank or vessel is in compliance with all other applicable State or federal air pollution requirements. [N.J.A.C. 7:27-22.1]	None.	None.	None.
11	Tank contents limited to Diesel #2 oil. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Emission Unit: U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural gas, backup fuel is #2 FO. Exempt from MACT Subpart JJJJJ and NSPS Sub Dc.

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity: No visible smoke except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Particulate Emissions <= 15 lb/hr (PT1). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.

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

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



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>The combustion source is not required to comply with the applicable NO<sub>x</sub> emission limits in N.J.A.C. 7:27-19, and the owner or operator is not required to adjust the combustion process described in N.J.A.C. 7:27-19.16, while fuel oil or other liquid fuel is burned. The owner or operator of this combustion source is eligible for this exemption only if the following requirements are met: 1) The owner or operator is not practicably able to obtain a sufficient amount of natural gas; 2) the owner or operator's inability to obtain natural gas due to circumstances beyond the control of the owner or operator, such as a natural gas curtailment; and 3) the combustion source 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. However, the owner or operator may periodically fire fuel oil or other liquid fuel for testing and maintenance. The owner or operator shall not fire fuel oil or other liquid fuel for 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 shown 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>. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7:27-19.25(a)] and [N.J.A.C. 7:27-19.25(c)]</p>	None.	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain records that include the following: For curtailment periods, 1) information sufficient to identify each combustion source for which the owner or operator claims an exemption, including a brief description of the source, its location, its permit number and other identifying numbers, and any other information necessary to distinguish it from other equipment owned and operated by the facility; 2) a statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas; 3) the date and time at which the owner or operator first became practicably unable to obtain natural gas; and 4) a description of the circumstances causing the owner or operator's inability to obtain natural gas. For testing and maintenance periods, record the date and number of hours that fuel oil or other liquid fuel has been combusted for testing and maintenance. [N.J.A.C. 7:27-19.25(d)]</p>	<p>Submit a report: Annually by March 1 of each year for the preceding calendar year to the Regional Enforcement Office. The annual report shall include: 1) information sufficient to identify each combustion source for which the owner or operator claims an exemption, including a brief description of the source, its location, its permit number and other identifying numbers, and any other information necessary to distinguish it from other equipment owned and operated by the facility; 2) a statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas; 3) the date and time at which the owner or operator first became practicably unable to obtain natural gas; and 4) a description of the circumstances causing the owner or operator's inability to obtain natural gas. The annual report shall also include any violations which occurred during the previous year. If no violations occurred during the year, the owner or operator shall provide certification that no violations occurred and that the records are maintained at the facility. If no fuel oil or other liquid fuel was combusted under the N.J.A.C. 7:27-19.25 exemption during the reporting period, the owner or operator is not required to submit an annual report to the Regional Enforcement Office and shall keep on-site certification in accordance with N.J.A.C. 7:27-1.39 that no fuel oil or other liquid fuel was combusted and that the records are maintained at the facility. [N.J.A.C. 7:27-19.19(g)(2)] &amp; [N.J.A.C. 7:27-19.25(d)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<p>The permittee shall use fuel oil or other liquid fuel only if:</p> <p>1) The permittee is practicably not able to obtain a sufficient amount of natural gas;</p> <p>2) The permittee is not able to obtain natural gas due to circumstances beyond the control of the permittee, such as a natural gas curtailment;</p> <p>and</p> <p>3) The combustion source 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.</p> <p>[N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7:27-19.25(a)] and [N.J.A.C. 7:27-19.25(c)]</p>	None.	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain records that include the following:</p> <p>For curtailment periods, 1) information sufficient to identify each combustion source for which the owner or operator claims an exemption, including a brief description of the source, its location, its permit number and other identifying numbers, and any other information necessary to distinguish it from other equipment owned and operated by the facility; 2) a statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas; 3) the date and time at which the owner or operator first became practicably unable to obtain natural gas; and 4) a description of the circumstances causing the owner or operator's inability to obtain natural gas.</p> <p>If no fuel oil or other liquid fuel was combusted during the year, maintain an on-site certification in accordance with N.J.A.C.7:27-1.39 stating that no fuel oil was combusted during this period.</p> <p>N.J.A.C. 7:27-22.16(o)], [N.J.A.C. 7:27-19.25(c)] and [N.J.A.C. 7:27-19.25(d)]</p>	<p>Submit a report: Annually if fuel oil or other liquid fuel was combusted under the N.J.A.C.7:27-19.25 exemption. Submit the report by March 1 of each year for the preceding calendar year to the Regional Enforcement Office. The annual report shall include items 1) through 4) specified under the Recordkeeping Requirements section. The annual report shall also include any violations which occurred during the previous year. If no violations occurred during the year, the owner or operator shall provide certification that no violations occurred and that the records are maintained at the facility.</p> <p>[N.J.A.C. 7:27-19.19(g)(2)] and [N.J.A.C. 7:27-19.25(d)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	<p>Hours of Operation While Firing Fuel Oil &lt;= 48 hours. Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year to qualify as a gas-fired boiler as defined in MACT Subpart JJJJJ, 40 CFR 63.11237.</p> <p>The owner or operator shall not fire fuel oil or other liquid fuel for 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 shown 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>. [N.J.A.C. 7:27-22.16(a)]</p>	None.	<p>Hours of Operation While Firing Fuel Oil: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record the total number hours fuel oil was combusted for periodic testing in a calendar year. Maintain readily accessible records onsite. [N.J.A.C. 7:27-22.16(o)]</p>	None.
8	<p>Flue Gas Recirculation Rate &gt;= 12 % of flue gas. The permittee shall utilize flue gas recirculation technology with a built-in control to continuously monitor the actuator position. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitored by flue gas recirculation actuator control monitor continuously, based on an instantaneous determination. An alarm shall be triggered if the actuator position is outside of its programmed range, and the burner shall be shut off. [N.J.A.C. 7:27-22.16(o)].</p>	None.	None.

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**New Jersey Department of Environmental Protection  
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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	Flue Gas Recirculation Rate: The owner or operator shall verify and adjust the flue gas recirculation rate during the annual combustion adjustment. [N.J.A.C. 7:27-22.16(a)]	None.	<p>Flue Gas Recirculation Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall record the following information:</p> <ol style="list-style-type: none"> <li>1. The date and time of the adjustment;</li> <li>2. The name, title and affiliation of the person who made the adjustment;</li> <li>3. The NOx concentrations in the effluent stream, in ppmvd, before and after each actual adjustment was made; and</li> <li>4. A description of any corrective action taken.</li> </ol> <p>The records must be retained for a minimum of five years and be made readily available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]</p>	None.
10	Boiler fuels limited to Natural Gas or No. 2 Fuel Oil. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	Boilers in this emission unit cannot be operated simultaneously. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Natural Gas Usage $\leq 425.12 \text{ MMft}^3$ per any consecutive 12 month period (combined limit for both boilers). [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by gas use totalizing meter continuously. [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Standard cubic feet per consecutive 12-month period shall be calculated by the sum of the standard cubic feet consumed during any one month added to the sum of the standard cubic feet consumed during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural...

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	Maximum Gross Heat Input $\leq$ 433,620 MMBTU (HHV) per any 12 consecutive month period (per boiler). [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 manual logging of parameter or storing data in a computer data system each month during operation of calculated monthly heat input and consecutive 12-month heat input. Operating logs shall be kept to accurately record the operating time and type and quantity of each fuel burned. Compliance with the maximum 12-month heat input limit shall be demonstrated monthly through fuel use records and the application of the following equation:  $\text{Actual 12-month Heat Input (Btu)} = [(\text{x SCF Natural Gas}) (1020 \text{ Btu/SCF})] + [(\text{y Gallons No. 2 Fuel Oil}) (142,000 \text{ Btu/Gallons})]$ <p>where "x" and "y" are the actual amounts of natural gas and No. 2 fuel oil combusted, respectively, based on fuel use records per consecutive 12-month period. [N.J.A.C. 7:27-22.16(o)]</p>	None.
14	Maximum Gross Heat Input $\leq$ 49.5 MMBTU/hr (HHV) (per boiler). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
15	VOC (Total) $\leq$ 1.17 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
16	NOx (Total) $\leq$ 21.43 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	CO <= 17.9 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
18	SO2 <= 0.13 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
19	TSP <= 1.63 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
20	PM-10 (Total) <= 1.62 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
21	PM-2.5 (Total) <= 1.62 tons/yr. Annual emission limit based on maximum annual heat input, natural gas usage, and annual hours of testing and maintenance while combusting No. 2 fuel oil (total for two boilers). [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
22	HAPs (Total) <= 0.0167 tons/yr. Annual emission limit based on Arsenic Emissions, Cadmium Emissions, Cobalt Emissions, Dimethylbenz(a)anthracene (7,12-), Formaldehyde, Nickel Emissions. [N.J.A.C. 7:27-22.16(a)]	HAPs (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Arsenic Emissions $\leq 0.0000425$ tons/yr (0.085 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.0002 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
24	Cadmium Emissions $\leq 0.000234$ tons/yr (0.468 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.0011 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
25	Cobalt Emissions $\leq 0.0000179$ tons/yr (0.0358 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.000084 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
26	Dimethylbenz(a)anthracene (7,12-) $\leq 0.0000034$ tons/yr (0.0068 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.000016 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Dimethylbenz(a)anthracene (7,12-): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Dimethylbenz(a)anthracene (7,12-): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
27	Formaldehyde $\leq 0.0159$ tons/yr (31.8 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.075 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
28	Nickel Emissions $\leq 0.000446$ tons/yr (0.892 lb/yr). Annual emission limit based on annual natural gas usage and AP-42 emission factor (0.0021 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Nickel Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Nickel Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural...

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

**Emission Unit:** U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural gas, backup fuel is #2 FO. Exempt from MACT Subpart JJJJJ and NSPS Sub Dc.

**Operating Scenario:** OS1 Boiler 1 Firing Natural Gas, OS2 Boiler 2 Firing Natural Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Natural Gas Usage $\leq$ 48,530 ft <sup>3</sup> /hr for Boiler 1 & 2 (E1 & E2), each. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage each hour during operation & backed up by a twenty-four hour strip chart recorder continuously. [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) $\leq$ 0.27 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (5.5 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	NOx (Total) $\leq$ 4.85 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (100 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.



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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>NO<sub>x</sub> (Total) ≤ 0.12 lb/MMBTU. The owner or operator of an industrial/commercial/institutional boiler or other indirect heat exchanger, with a maximum gross heat input rate of at least 25 million BTU per hour, but less than 50 million BTU per hour, burning natural gas with a dual fuel burner shall cause the boiler or other indirect heat exchanger to emit NO<sub>x</sub> at a rate no greater than the applicable maximum allowable NO<sub>x</sub> emission rate specified above in accordance with the following schedule, unless the owner or operator is complying with N.J.A.C. 7:27-19.3(f):</p> <p>1. On and after May 1, 2011, if compliance is achieved without physically modifying the boiler or other indirect heat exchanger; or</p> <p>2. On and after May 1, 2012, if compliance is achieved by physically modifying the boiler or other indirect heat exchanger.</p> <p>Once initial stack testing was completed on 04/19/12. [N.J.A.C. 7:27-19.7(i)1]</p>	None.	None.	None.
5	<p>CO ≤ 4.08 lb/hr. Maximum emission rate for Boiler 1 &amp; 2 (E1 &amp; E2), each, based on AP-42 emission factor (84 lb/MMft<sup>3</sup>).</p> <p>Once initial stack testing was completed on 04/19/12. [N.J.A.C. 7:27-22.16(a)]</p>	None.	None.	None.
6	<p>SO<sub>2</sub> ≤ 0.03 lb/hr. Maximum emission rate for Boiler 1 &amp; 2 (E1 &amp; E2), each, based on AP-42 emission factor (0.6 lb/MMft<sup>3</sup>). [N.J.A.C. 7:27-22.16(a)]</p>	None.	None.	None.
7	<p>TSP ≤ 0.37 lb/hr. Maximum emission rate for Boiler 1 &amp; 2 (E1 &amp; E2), each, based on AP-42 emission factor (7.6 lb/MMft<sup>3</sup>). [N.J.A.C. 7:27-22.16(a)]</p>	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	PM-10 (Total) <= 0.37 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (7.6 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) <= 0.37 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (7.6 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Arsenic Emissions <= 0.00000971 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.0002 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Cadmium Emissions <= 0.0000534 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.0011 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Cobalt Emissions <= 0.00000408 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.000084 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Dimethylbenz(a)anthracene (7,12-) <= 7.77E-7 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.000016 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Formaldehyde <= 0.00364 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.075 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Nickel Emissions <= 0.000102 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2) based on AP-42 emission factor (0.0021 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural...

OS1, OS2

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

**Emission Unit:** U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural gas, backup fuel is #2 FO. Exempt from MACT Subpart JJJJJ and NSPS Sub Dc.

**Operating Scenario:** OS3 Boiler 1 Firing #2 Fuel Oil, OS4 Boiler 2 Firing #2 Fuel Oil

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight) for Zone 4. Effective July 1, 2016. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
2	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
3	VOC (Total) <= 0.12 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (0.34 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	NOx (Total) <= 7.07 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (20 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 1.77 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (5 lb/1000gal).  Once initial stack testing was completed on 04/19/12. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	SO2 <= 0.08 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (0.213 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	TSP <= 0.71 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (2 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U1 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural...

OS3, OS4

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	PM-10 (Total) <= 0.35 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (1 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) <= 0.09 lb/hr. Maximum emission rate for Boiler 1 & 2 (E1 & E2), each, based on AP-42 emission factor (0.25 lb/1000gal). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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**Emission Unit:** U3 Emergency Diesel Generator #4 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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.
2	Opacity <= 10 % exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 5.46 lb/hr (PT4). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [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.
5	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
6	Generator fuel limited to Diesel # 2 oil. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	<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> <p>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,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>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]</p>	<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; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</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 and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [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. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul 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> </ul> <p>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.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</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
8	<p>This emergency generator shall not be used:</p> <p>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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	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
9	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.
10	Maximum Gross Heat Input <= 9.1 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
11	VOC (Total) <= 0.01 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	NOx (Total) <= 1.46 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	CO <= 0.5 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	SO2 <= 0.1 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	TSP <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.



New Jersey Department of Environmental Protection  
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	PM-10 (Total) <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	PM-2.5 (Total) <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

**Emission Unit:** U3 Emergency Diesel Generator #4 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

**Operating Scenario:** OS1 Emergency Generator #4, 9.1 MMBTU/hr, 1000 kW

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.2 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	NOx (Total) <= 29.2 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	CO <= 9.9 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	SO2 <= 2 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP <= 0.8 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) <= 0.8 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) <= 0.8 lb/hr. Maximum emission rate for Generator #4 (E5) based on manufacturer data. [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**

**Emission Unit:** U4 Emergency Diesel Generator #5 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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.
2	Opacity <= 10 % exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 5.46 lb/hr (PT5). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [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.
5	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
6	Generator fuel limited to Diesel # 2 oil. [N.J.A.C. 7:27-22.16(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
7	<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> <p>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,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>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]</p>	<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; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</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 and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [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. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul 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> </ul> <p>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.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</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
8	<p>This emergency generator shall not be used:</p> <p>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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	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
9	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.
10	Maximum Gross Heat Input <= 9.1 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
11	VOC (Total) <= 0.01 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	NOx (Total) <= 1.46 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	CO <= 0.5 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	SO2 <= 0.1 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	TSP <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	PM-10 (Total) <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	PM-2.5 (Total) <= 0.04 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

**Emission Unit:** U4 Emergency Diesel Generator #5 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

**Operating Scenario:** OS1 Emergency Generator #5, 9.1 MMBTU/hr, 1000 kW

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.2 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	NOx (Total) <= 29.2 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	CO <= 9.9 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	SO2 <= 2 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP <= 0.8 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) <= 0.8 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) <= 0.8 lb/hr. Maximum emission rate for Generator #5 (E6) based on manufacturer data. [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**

**Emission Unit:** U5 Emergency Diesel Generator #3 (600 kW, 5.8 MMBtu/hr, Caterpillar Model 3412T)

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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.
2	Opacity <= 10 % exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Particulate Emissions <= 3.48 lb/hr (PT3). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [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.
5	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
6	Generator fuel limited to Diesel # 2 oil. [N.J.A.C. 7:27-22.16(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
7	<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> <p>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,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>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]</p>	<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; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</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 and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [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. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul 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> </ul> <p>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.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</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
8	<p>This emergency generator shall not be used:</p> <p>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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	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
9	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.
10	Maximum Gross Heat Input <= 5.8 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
11	VOC (Total) <= 0.02 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	NOx (Total) <= 0.58 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	CO <= 0.1 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	SO2 <= 0.06 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	TSP <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	PM-10 (Total) <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	PM-2.5 (Total) <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements**

**Emission Unit:** U5 Emergency Diesel Generator #3 (600 kW, 5.8 MMBtu/hr, Caterpillar Model 3412T)

**Operating Scenario:** OS1 Emergency Generator #3, 5.8 MMBTU/hr, 600 kW

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.3 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	NOx (Total) <= 11.6 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	CO <= 2 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	SO2 <= 1.2 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP <= 1 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) <= 1 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) <= 1 lb/hr. Maximum emission rate for Generator #3 (E7) based on manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Emission Unit: U9 Two 5.23 MMBtu/hr Package Boilers (Cleaver Brooks) venting into one stack  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity: No visible smoke except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Particulate Emissions <= 6.09 lb/hr (PT01). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.

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



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	The owner or operator of the adjusted equipment or source operation shall ensure that the operating parameter settings are established and recorded after the combustion process is adjusted and that the adjusted equipment or source operation is maintained to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)]	Other: Monitored by the operating parameter settings that are established after the combustion process is adjusted in order to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted and retain until the next annual adjustment, to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(e)].	None.
5	The permittee shall install, operate and maintain Low NOx Burners on the boiler. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Boiler fuel limited to natural gas. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	Natural Gas Usage $\leq 89.84 \text{ MMft}^3/\text{yr}$ (total) for CB Boilers #1 & #2 (E12 & 13). [N.J.A.C. 7:27-22.16(e)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The cubic feet for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
8	VOC (Total) $\leq 0.25 \text{ tons/yr}$ . Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
9	NOx (Total) $\leq 4.49 \text{ tons/yr}$ . Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
10	CO $\leq 3.77 \text{ tons/yr}$ . Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
11	TSP $\leq 0.34 \text{ tons/yr}$ . Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	PM-10 (Total) $\leq$ 0.34 tons/yr. Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
13	PM-2.5 (Total) $\leq$ 0.34 tons/yr. Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage. [N.J.A.C. 7:27-22.16(e)]	PM-2.5 (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
14	HAPs (Total) $\leq$ 0.0034 tons/yr. Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on Arsenic Emissions, Cadmium Emissions, Cobalt Emissions, Dimethylbenz(a)anthracene (7,12-), Formaldehyde. [N.J.A.C. 7:27-22.16(a)]	HAPs (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
15	Arsenic Emissions $\leq$ 0.00000898 tons/yr (0.01796 lb/yr). Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage and AP-42 emission factor (0.0002 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Arsenic Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Arsenic Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
16	Cadmium Emissions $\leq$ 0.0000494 tons/yr (0.0988 lb/yr). Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage and AP-42 emission factor (0.0011 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Cadmium Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Cadmium Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
17	Cobalt Emissions $\leq$ 0.00000377 tons/yr (0.00754 lb/yr). Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage and AP-42 emission factor (0.000084 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Cobalt Emissions: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Cobalt Emissions: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
18	Dimethylbenz(a)anthracene (7,12-) $\leq$ 7.19E-7 tons/yr (0.001438 lb/yr). Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage and AP-42 emission factor (0.000016 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(a)]	Dimethylbenz(a)anthracene (7,12-): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Dimethylbenz(a)anthracene (7,12-): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Formaldehyde <= 0.00337 tons/yr (6.74 lb/yr). Annual emission limit (total) for CB Boilers #1 & #2 (E12 & 13) based on annual fuel usage and AP-42 emission factor (0.075 lb/MMft^3). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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**Emission Unit:** U9 Two 5.23 MMBtu/hr Package Boilers (Cleaver Brooks) venting into one stack

**Operating Scenario:** OS1 Boiler CB1, Natural Gas, OS2 Boiler CB2, Natural Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum Gross Heat Input $\leq 5.23$ MMBTU/hr (HHV) for CB Boilers #1 & #2 (E12 & 13), each. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
2	VOC (Total) $\leq 0.03$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (5.5 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	NOx (Total) $\leq 0.51$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (100 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	CO $\leq 0.43$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (84 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP $\leq 0.04$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (7.6 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) $\leq 0.04$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (7.6 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	PM-2.5 (Total) $\leq 0.04$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each, based on AP-42 emission factor (7.6 lb/MMft <sup>3</sup> ). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Arsenic Emissions $\leq 0.00000206$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), combined. Based on AP-42 emission factor ( $0.0002 \text{ lb/MMft}^3$ ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Cadmium Emissions $\leq 0.00000564$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each. Based on AP-42 emission factor ( $0.0011 \text{ lb/MMft}^3$ ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Cobalt Emissions $\leq 8.62\text{E-}7$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), combined. Based on AP-42 emission factor ( $0.000084 \text{ lb/MMft}^3$ ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Dimethylbenz(a)anthracene (7,12-) $\leq 8.2\text{E-}8$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), each. Based on AP-42 emission factor ( $0.000016 \text{ lb/MMft}^3$ ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Formaldehyde $\leq 0.00077$ lb/hr. Maximum emission rate for CB Boilers #1 & #2 (E12 & 13), combined. Based on AP-42 emission factor ( $0.075 \text{ lb/MMft}^3$ ). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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**Emission Unit:** U10 Emergency Diesel Generator #6 (400 kW, 3.2 MMBtu/hr, Caterpillar Model 3406)

**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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.
2	Particulate Emissions <= 1.92 lb/hr (PT11). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). Effective July 1, 2016. [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.
4	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.
5	Generator fuel limited to Diesel # 2 oil. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<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> <p>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,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (<a href="http://www.pjm.com">www.pjm.com</a>) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1]</p>	<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; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</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 and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [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. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul 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> </ul> <p>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.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</p>	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	<p>This emergency generator shall not be used:</p> <p>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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	None.	None.	None.



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	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.
9	Maximum Gross Heat Input <= 3.2 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
10	VOC (Total) <= 0.06 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	NOx (Total) <= 0.71 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	CO <= 0.15 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	SO2 <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	TSP <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	PM-10 (Total) <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	PM-2.5 (Total) <= 0.05 tons/yr. Annual emission limit based on the permitted hours per year of operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements**

**Emission Unit:** U10 Emergency Diesel Generator #6 (400 kW, 3.2 MMBtu/hr, Caterpillar Model 3406)

**Operating Scenario:** OS1 Emergency Generator #6, 3.2 MMBTU/hr, 400 kW

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 1.15 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	NOx (Total) <= 14.1 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	CO <= 3.05 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	SO2 <= 0.93 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP <= 0.99 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) <= 0.99 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	PM-2.5 (Total) <= 0.99 lb/hr. Maximum emission rate for Generator #6 (E14) based on manufacturer data. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Emission Unit: U11 GOP-006 CHP Engine 2763 BHP

Subject Item: CD1 CHP Engine SCR

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Temperature at Catalyst Bed $\geq 522$ and Temperature at Catalyst Bed $\leq 932$ degrees F for the SCR. [N.J.A.C. 7:27-22.16(a)]	Temperature at Catalyst Bed: Monitored by temperature instrument continuously. An alarm or other operational warning system shall be installed and shall be designed to sound when temperatures outside the permitted operating range are detected at any time. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Temperature at Catalyst Bed: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
2	Flowrate $\geq 0.385$ and Flowrate $\leq 2.31$ gal/hr of reagent to the SCR. The reagent is a 40% by volume urea/water mixture of reagent to the SCR.  The SCR shall be operated at all times that the engine is operating. Reagent shall be injected at all times that the engine is operating, as per the manufacturer's specifications. [N.J.A.C. 7:27-22.16(a)]	Flowrate: Monitored by material feed/flow monitoring continuously. An alarm or other operational warning system shall be installed and shall be designed to sound when flow rates outside the permitted operating range are detected at any time. 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)]	Flowrate: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The catalyst array(s) for the SCR shall be maintained and replaced in accordance with the recommendations of the manufacturer, and as necessary based on emission levels indicated during the periodic emission monitoring. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by complying with the manufacturer's recommended maintenance procedures.[N.J.A.C. 7:27-22.16(o)].	<p>Other: Recordkeeping by keeping the manufacturer's design specification and recommended maintenance procedures on site for the life of the equipment.</p> <p>A record of maintenance performed must be manually logged or stored in a computer data system upon occurrence of event and must be made readily available during inspection by the Department. The record must contain the following information at a minimum:</p> <ol style="list-style-type: none"> <li>1. The date the maintenance was performed;</li> <li>2. The name, title and affiliation of the person who performed the maintenance; and</li> <li>3. A description of the of the maintenance activity.</li> </ol> <p>[N.J.A.C. 7:27-22.16(o)].</p>	None.

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Emission Unit: U11 GOP-006 CHP Engine 2763 BHP

Subject Item: CD2 CHP Engine Oxidation Catalyst

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Temperature at Exit of Catalyst $\geq 572$ and Temperature at Exit of Catalyst $\leq 1,202$ degrees F for the Oxidation Catalyst. [N.J.A.C. 7:27-22.16(a)]	Temperature at Exit of Catalyst: Monitored by temperature instrument continuously. An alarm or other operational warning system shall be installed and shall be designed to sound when temperatures outside the permitted operating range are detected at any time. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Temperature at Exit of Catalyst: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
2	The catalyst array(s) for the Oxidation Catalyst shall be maintained and replaced in accordance with the recommendations of the manufacturer, and as necessary based on emission levels indicated during the periodic emission monitoring. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by complying with the manufacturer's recommended maintenance procedures. [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping by keeping the manufacturer's design specification and recommended maintenance procedures on site for the life of the equipment.  A record of maintenance performed must be manually logged or stored in a computer data system upon occurrence of event and must be made readily available during inspection by the Department. The record must contain the following information at a minimum:  1. The date the maintenance was performed; 2. The name, title and affiliation of the person who performed the maintenance; and 3. A description of the of the maintenance activity.  [N.J.A.C. 7:27-22.16(o)].	None.

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Emission Unit: U11 GOP-006 CHP Engine 2763 BHP

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ [40 CFR Federal Rules Summary]	None.	None.	None.
2	<p><b>STACK TESTING SUMMARY</b></p> <p>The permittee shall conduct a stack test no later than every five years (see General Provisions) from the last stack test using an approved protocol to demonstrate compliance with emission limits for CO, NO<sub>x</sub>, VOC, ammonia, and formaldehyde as specified in the compliance plan for OS1.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.</p> <p>The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NO<sub>x</sub> and/or CO, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above. [N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s).</p> <p>[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 12 months prior to the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: <a href="http://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert">www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert</a>. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and . [N.J.A.C. 7:27-22.18(h)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p><b>PERIODIC STACK TESTING SUMMARY</b></p> <p>The permittee shall conduct a periodic stack test using a protocol approved by the Department to demonstrate compliance with emission limits for CO, NO<sub>x</sub>, VOC, and formaldehyde as specified in the compliance plan for OS1.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]</p>	Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	<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 no later than 180 days prior to the testing due date or request from EMS, in writing, to use a previously approved protocol no later than 90 days prior to the testing due date. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT) that is downloaded at: <a href="http://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert">www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert</a>, unless another format is approved by EMS. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date. A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]</p>



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>FEDERAL STACK TESTING SUMMARY</p> <p>The permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the emission limits for CO, NOx, and VOC as specified in the compliance plan for OS1.</p> <p>Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR 60.4230. [40 CFR 60.4244] and [40 CFR 60.4243(b)(2)(ii)]</p>	<p>Other: Monitoring as required under the applicable requirement(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable requirement(s).[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other (provide description): Other. Submittal/Action as required under the applicable requirement(s). [N.J.A.C. 7:27-22.16(o)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	The permittee shall perform Periodic Monitoring Procedure (PMP) tests to ensure the reciprocating engine(s) are operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions. [N.J.A.C. 7:27-22.16(a)]	<p>Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The minimum duration between Periodic Monitoring Procedure (PMP) tests shall be 45 calendar days. The PMP frequency was reduced from the Initial Frequency of monthly, with a minimum duration of 15 calendar days between PMP tests. PMP frequency can only be reduced once. There shall be no further frequency reductions allowed.</p> <p>PMP tests are only required if the equipment operated during the monitoring period.</p> <p>The permittee shall measure the concentrations in the effluent stream of NOx, CO and O2 and convert them to units of pounds per hour (lb/hr) in accordance with Technical Manual 1005. [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. The permittee shall maintain the following records:</p> <ol style="list-style-type: none"> <li>1. Date of periodic emission monitoring;</li> <li>2. Equipment, Emission Unit and Operating Scenario number;</li> <li>3. Measured concentrations of NOx and CO (ppmvd) and O2 (%);</li> <li>4. Calculated emissions of NOx and CO (lb/hr and g/bhp-hr);</li> <li>5. A description of any corrective action taken;</li> <li>6. Results from any subsequent measurements performed after taking any corrective action, including concentrations and calculated emission values in pounds per hour and grams per brake horsepower hour.</li> </ol> <p>If the equipment did not operate during a monitoring period, record "Did not operate" for that period. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other (provide description): Other. If either of the NOx or CO PMP test results exceed the lb/hr or g/bhp-hr permit limits ("exceedance"), the frequency of PMP testing immediately reverts back to the Initial Frequency, and the permittee shall:</p> <ol style="list-style-type: none"> <li>1. Take corrective action or cease operation within 15 minutes of the exceedance.</li> <li>2. Notify the Department within 24 hours of the exceedance by calling the Environmental Action Hotline at (877) 927-6337.</li> <li>3. Submit a report within 30 days of the exceedance for all periodic emission monitoring performed in the 12 months prior to this exceedance with the items listed in 1-6 of the Recordkeeping Requirement to the appropriate regional enforcement office.</li> <li>4. Retest the equipment within 24 hours of completing corrective action or restarting operation, whichever is sooner.</li> <li>5. Repeat the steps above until the exceedance has been eliminated or the equipment is removed from service; and</li> <li>6. Submit a report within 30 days of completing corrective action (Step 5) for the test that showed the exceedance and each subsequent test performed following corrective action with the items listed in 1-6 of the Recordkeeping Requirement to the appropriate regional enforcement office; and</li> <li>7. Submit a permit modification application within 30 days of the exceedance to change the PMP testing back to the Initial Frequency. [N.J.A.C. 7:27-22.16(o)]</li> </ol>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	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.
7	Opacity: Except for start-up and shutdown, equipment shall not be operated in a manner that will cause visible emissions, exclusive of visible condensed water vapor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	Particulate Emissions <= 7.49 lb/hr (PT12). Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
9	The Permittee shall conduct the adjustment of the combustion process according to manufacturer's recommended maintenance schedules for each engine or each engine and duct burner. The adjustment of the combustion process shall be done in accordance with the procedure set forth at N.J.A.C. 7:27-19.16 and the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005. [N.J.A.C.7:27-19.16(g)] and [N.J.A.C. 7:27-19.8(f)2]	Monitored by periodic emission monitoring upon performing combustion adjustment. Adjust the combustion process, according to manufacturer's recommended maintenance schedules. [N.J.A.C. 7:27-19.16(g)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment. The Permittee of a combined heat and power stationary spark ignition reciprocating engine shall retain records for a minimum of five years, to be made readily accessible to the Department upon request. Such record shall contain the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentrations of NO <sub>x</sub> , CO and O <sub>2</sub> , measured before and after the adjustment was made; and 5. The type and amount of fuel use over the 12 months prior to the adjustment. [N.J.A.C. 7:27-19.16(h)]	None.
10	Maximum Gross Heat Input <= 17.47 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Maximum Rated Power Output <= 2,763 other units (brake horsepower). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum rated power output.[N.J.A.C. 7:27-22.16(o)].	None.
12	Natural Gas Usage <= 152.42 MMft <sup>3</sup> per any consecutive 12-month period. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Standard cubic feet per consecutive 12-month period shall be calculated by the sum of the standard cubic feet consumed during any one month added to the sum of the standard cubic feet consumed during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
13	VOC (Total) <= 4.8 tons/yr. Annual emission limit based on maximum rated power output (2,763 brake horsepower), maximum annual hours of operation (8,760 hours) and post-control manufacturer emission factor (0.18 grams/brake horsepower- hour). [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
14	NOx (Total) <= 3.74 tons/yr. Annual emission limit based on maximum rated power output (2,763 brake horsepower), maximum annual hours of operation (8,760 hours) and post-control manufacturer emission factor (0.14 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
15	CO <= 11.21 tons/yr. Annual emission limit based on maximum rated power output (2,763 brake horsepower), maximum annual hours of operation (8,760 hours) and post-control manufacturer emission factor (0.42 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
16	HAPs (Total) <= 1.36 tons/yr. Annual emission limit based on Acetaldehyde, Acrolein, Benzene, Butadiene, Ethylene dibromide, Formaldehyde, Naphthalene, Tetrachloroethane (1,1,2,2-). [N.J.A.C. 7:27-22.16(a)]	HAPs (Total): Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Acetaldehyde <= 0.142 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Acetaldehyde: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Acetaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
18	Acrolein <= 0.126 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
19	Benzene <= 0.0108 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Benzene: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Benzene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
20	Butadiene (1,3-) <= 0.00656 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Butadiene (1,3-): Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Butadiene (1,3-): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
21	Ethylene dibromide <= 0.00109 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Ethylene dibromide: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Ethylene dibromide: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
22	Formaldehyde <= 1.07 tons/yr. Annual emission limit based on maximum rated power output (2,763 brake horsepower), maximum annual hours of operation (8,760 hours) and post-control manufacturer emission factor (0.04 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
23	Naphthalene <= 0.00183 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Naphthalene: Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Naphthalene: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
24	Tetrachloroethane (1,1,2,2-) <= 0.000928 tons/yr. Annual emission limit based on annual gas usage, AP-42 emission factor, and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	Tetrachloroethane (1,1,2,2-): Monitored by calculations each month during operation. Tons per consecutive 12-month period shall be calculated by the sum of the tons emitted during any one month added to the sum of the tons emitted during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	Tetrachloroethane (1,1,2,2-): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.
25	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. (NSPS Subpart A) [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)]
26	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. (NSPS Subpart A) [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	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. (NSPS Subpart A) [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)]
28	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. (NSPS Subpart A) [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)]
29	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. (NSPS Subpart A) [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)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. (NSPS Subpart A) [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.
31	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. (NSPS Subpart A) [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)]
32	The owner or operator shall conduct performance tests and data reduced in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. (NSPS Subpart A) [40 CFR 60.8(b)]	None.	None.	None.



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	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. (NSPS Subpart A) [40 CFR 60.8(c)]	None.	None.	None.
34	The owner or operator shall provide the Administrator at least 30 days prior notice of any performance test and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e). (NSPS Subpart A) [40 CFR 60.8(d)]	None.	None.	None.
35	Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. (NSPS Subpart A) [40 CFR 60.8(f)]	None.	None.	None.
36	Compliance with NSPS standards specified in this permit, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. (NSPS Subpart A) [40 CFR 60.11(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
37	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. (NSPS Subpart A) [40 CFR 60.11(d)]	None.	None.	None.
38	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. (NSPS Subpart A) [40 CFR 60.12]	None.	None.	None.
39	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. (NSPS Subpart A) [40 CFR 60.19]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
40	The owner or operator of a new non-certified SI ICE natural gas or lean burn LPG with a maximum engine power of $\geq 1350$ HP ( $\geq 1010$ kW) manufactured after July 1, 2010 must meet the emission standards for engines HP $\geq 500$ summarized in Table 1 in 40 CFR 60 Subpart JJJJ as follows: NO <sub>x</sub> $\leq 1.0$ g/HP-hr ( 1.3 g/kW-hr), CO $\leq 2.0$ g/HP-hr (2.7 g/kW-hr), VOC $\leq 0.7$ g/HP-hr (1 g/kW-hr) or NO <sub>x</sub> $\leq 82$ ppmvd @15% O <sub>2</sub> , CO $\leq 270$ ppmvd @15% O <sub>2</sub> , VOC $\leq 60$ ppmvd @15% O <sub>2</sub> . (NSPS Subpart JJJJ) [40 CFR 60.4233(e)]	Monitored by stack emission testing at the approved frequency, based on the average of three 1-hour tests. The permittee shall conduct an initial performance test and conduct subsequent performance testing every 8760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, per 40 CFR 60.4243(b)(2)(ii). Each performance test must be conducted according to the requirements in 40 CFR 60.8 and 40 CFR 60.4244 and under the specific conditions specified in Table 2 to 40 CFR 60 Subpart JJJJ. The tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). Three separate test runs for each performance test must be conducted, each test run must last at least 1 hour. Compliance with the emission limits shall be determined based on calculations in 40 CFR 60.4244(d) through (g). [40 CFR 60.4243(b)(2)]	Recordkeeping by stack test results at the approved frequency. The owner or operator of a SI ICE engine must keep documentation demonstrating compliance with the applicable emission standards. [40 CFR 60.4245(a)]	Submit a stack test report: Within 60 days of stack testing. The owner or operator of a SI ICE engine must submit the results of stack tests to EPA Region 2 and to the Regional Enforcement Office of NJDEP. [40 CFR 60.4245(d)]
41	The owner or operator of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. (NSPS Subpart JJJJ) [40 CFR 60.4234]	Other: The owner or operator must demonstrate compliance as prescribed in 40 CFR 60 Subpart JJJJ. [40 CFR 60].	Other: The owner or operator must keep records of the documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)].	None.
42	The owner or operator may not install stationary SI ICE that do not meet the applicable requirements in 40 CFR 60.4233 after the deadline established in 40 CFR 60.4236(a) and (b), except for engines that were removed from one existing location and reinstalled at a new location. (NSPS Subpart JJJJ) [40 CFR 60.4236]	Other: The owner or operator must demonstrate compliance as prescribed in 40 CFR 60 Subpart JJJJ. [40 CFR 60].	Other: The owner or operator must keep records of the documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
43	The owner or operator of a non - certified SI ICE engine with maximum engine power > 500 HP (> 375 kW) must keep a maintenance plan and records of conducted maintenance, and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Additionally, the owner or operator must conduct an initial performance test and conduct subsequent performance testing in accordance with 40 CFR 60.4244 every 8760 hours or 3 years, whichever comes first, as prescribed in 40 CFR 60.4243(b)(2)(ii) to demonstrate compliance. (NSPS Subpart JJJJ) [40 CFR 60.4243(b)(2)(ii)]	Other: The owner or operator must demonstrate compliance as prescribed in 40 CFR 60.4243(b)(2). [40 CFR 60.4243].	Other: The owner or operator must keep records of the documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)].	None.
44	The owner or operator of the modified or reconstructed SI ICE that must comply with the emission standards specified in 40 CFR 60.4233(f), must demonstrate compliance according to 40 CFR 60.4243(b)(2)(i) for SI ICE with a maximum engine power <= 500 HP and 40 CFR 60.4243(b)(2)(ii) for SI ICE with a maximum engine power >500 HP. (NSPS Subpart JJJJ) [40 CFR 60.4243(c)]	Other: The owner or operator must demonstrate compliance according to 40 CFR 60.4243(b)(2)(i) for SI ICE with a maximum engine power <= 500 HP and 40 CFR 60.4243(b)(2)(ii) for SI ICE with a maximum engine power >500 HP. [40 CFR 60.4243(c)].	Other: The owner or operator must keep records of the documentation that the engine meets the emission standards. [40 CFR 60.4245(a)(4)].	None.
45	The owner or operators of all SI ICE must keep records of the information in 40 CFR 60.4245(a)(1) through (4) as follows: All notification submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification; maintenance conducted on the engine; for a certified engine, keep documentation from the manufacturer that the engine is certified; if engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards. (NSPS Subpart JJJJ) [40 CFR 60.4245(a)]	None.	Other: The owner or operators of all SI ICE must keep records of the information in 40 CFR 60.4245(a)(1) through (4) as follows: (1) All notification submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification; (2) maintenance conducted on the engine; (3) for a certified engine, keep documentation from the manufacturer that the engine is certified; (4) if engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards. [40 CFR 60.4245(a)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
46	The owner or operator of SI ICE engine with a maximum engine power $\geq 500$ HP ( $\geq 375$ kW) that have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). (NSPS Subpart JJJJ) [40 CFR 60.4245(c)]	None.	None.	Submit notification: Once initially The owner or operator must submit an initial notification as required in 40 CFR 60.7(a)(1) to EPA Region 2 and Regional Enforcement Office of NJDEP. The notification must include the information outlined in 40 CFR 60.4245(c)(1) through (5): (1) Name and address of the owner or operator; (2) The address of the affected source; (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; (4) Emission control equipment; and (5) Fuel used. [40 CFR 60.4245(c)]
47	The owner or operator of SI ICE engine shall comply with the applicable General Provisions in 40 CFR 60 Subpart A as listed in Table 3 in 40 CFR 60 Subpart JJJJ. (NSPS Subpart JJJJ) [40 CFR 60.4246]	None.	None.	None.
48	A new or reconstructed stationary RICE located at an area HAP source must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60 subpart IIII, for compression ignition engines or 40 CFR 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63. [40 CFR 63.6590(c)]	Other: Comply with all applicable provisions at NSPS JJJJ. [40 CFR 63].	Other: Comply with all applicable provisions at NSPS JJJJ. [40 CFR 63].	None.

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**Emission Unit:** U11 GOP-006 CHP Engine 2763 BHP**Operating Scenario:** OS1 17.47 MMBTU/hr (HHV) CHP Engine (2763 BHP), Natural Gas, Normal Operation, Controlled by CD1 SCR and CD2 Oxidation Catalyst

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Operation under this operating scenario must be controlled by selective catalytic reduction (SCR) CD1. See control device CD1 for applicable requirements. [N.J.A.C. 7:27-22.16(a)]	Other: See CD1 for details.[N.J.A.C. 7:27-22.16(o)].	Other: See CD1 for details.[N.J.A.C. 7:27-22.16(o)].	Other (provide description): Other. See CD1 for details. [N.J.A.C. 7:27-22.16(o)]
2	Operation under this operating scenario must be controlled by catalytic oxidizer CD2. See control device CD2 for applicable requirements. [N.J.A.C. 7:27-22.16(a)]	Other: See CD2 for details.[N.J.A.C. 7:27-22.16(o)].	Other: See CD2 for details.[N.J.A.C. 7:27-22.16(o)].	Other (provide description): Other. See CD2 for details. [N.J.A.C. 7:27-22.16(o)]
3	VOC (Total) <= 0.18 grams/brake horsepower-hour. This limit includes formaldehyde emissions. Maximum emission rate based on post-control manufacturer emission factor. [N.J.A.C. 7:27-22.35]	VOC (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	VOC (Total) <= 10 ppmvd @ 15% O <sub>2</sub> . This limit includes formaldehyde emissions. Maximum concentration based on post-control manufacturer guarantee. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
5	VOC (Total) <= 1.09 lb/hr. This limit includes formaldehyde emissions. Maximum emission rate based on maximum rated power output (2,763 brake horsepower) and the post-control manufacturer emission factor (0.18 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	NO <sub>x</sub> (Total) <= 0.9 grams/brake horsepower-hour.  Once initial stack testing was completed on 02/14/19. [N.J.A.C. 7:27-19.8(e)]	None.	Other: Retain a copy of the February 2019 stack test results (TST180001) demonstrating compliance.[N.J.A.C. 7:27-22.16(o)].	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	NOx (Total) <= 0.14 grams/brake horsepower-hour. Maximum emission rate based on post-control manufacturer emission factor. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	NOx (Total) <= 0.15 grams/brake horsepower-hour. SOTA determined by the General Operating Permit for the source. [N.J.A.C. 7:27-22.35]	NOx (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	NOx (Total) <= 10 ppmvd @ 15% O <sub>2</sub> . SOTA determined by the General Operating Permit for the source. [N.J.A.C. 7:27-22.35]	NOx (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
10	NOx (Total) <= 0.85 lb/hr. Maximum emission rate based on maximum rated power output (2,763 brake horsepower) and the post-control manufacturer emission factor (0.14 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	CO <= 0.42 grams/brake horsepower-hour. Maximum emission rate based on post-control manufacturer emission factor. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
12	CO <= 0.5 grams/brake horsepower-hour. SOTA determined by the General Operating Permit for the source. [N.J.A.C. 7:27-22.35]	CO: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the 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	CO ≤ 50 ppmvd @ 15% O <sub>2</sub> . SOTA determined by the General Operating Permit for the source. [N.J.A.C. 7:27-22.35]	CO: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
14	CO ≤ 500 ppmvd @ 15% O <sub>2</sub> . [N.J.A.C. 7:27-16.10(b)]	CO: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
15	CO ≤ 2.56 lb/hr. Maximum emission rate based on maximum rated power output (2,763 brake horsepower) and the post-control manufacturer emission factor (0.42 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results annually. See stack testing summary in the 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. Alternatively, the Permittee may request EMS to use the approved protocol. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
16	Acetaldehyde ≤ 0.0324 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Acrolein ≤ 0.0288 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Ammonia ≤ 10 ppmvd @ 15% O <sub>2</sub> . SOTA determined by the General Operating Permit for the source. [N.J.A.C. 7:27-22.35]	Ammonia: Monitored by stack emission testing once initially and prior to permit expiration date, based on each of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by stack test results once initially and upon renewal. See stack testing summary in the 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 stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
19	Benzene ≤ 0.00247 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Butadiene (1,3-) ≤ 0.0015 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.



BOP190002

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Ethylene dibromide <= 0.000248 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Formaldehyde <= 0.014 lb/MMBTU. Maximum emission rate based on maximum heat input rate (17.47 million British thermal units per hour), maximum rated power output (2,763 brake horsepower), and post-control manufacturer emission factor (0.04 grams/brake horsepower hour). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially and upon renewal. See stack testing summary in the 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 stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
23	Formaldehyde <= 0.24 lb/hr. Maximum emission rate based on maximum rated power output (2,763 brake horsepower) and the post-control manufacturer emission factor (0.04 grams/brake horsepower-hour). [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially and upon renewal. See stack testing summary in the 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 stack testing summary in the OS Summary. [N.J.A.C. 7:27-22.16(o)]
24	Naphthalene <= 0.000417 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Tetrachloroethane (1,1,2,2-) <= 0.000224 lb/hr. Maximum emission rate based on AP-42 emission factor and post-control manufacturer data. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

**Facility Name (AIMS):** St. Peter's University Hospital

**Facility ID (AIMS):** 17913

**Street** 254 EASTON AVE  
**Address:** NEW BRUNSWICK, NJ 08901

**Mailing** 254 EASTON AVE  
**Address:** NEW BRUNSWICK, NJ 08901

**County:** Middlesex

**Location**  
**Description:**

<b>State Plane Coordinates:</b>	
<b>X-Coordinate:</b>	547
<b>Y-Coordinate:</b>	4,483
<b>Units:</b>	UTM Zone 18N - Meters
<b>Datum:</b>	Unknown
<b>Source Org.:</b>	Address Match
<b>Source Type:</b>	Approx. Addr. Match

<b>Industry:</b>	
<b>Primary SIC:</b>	8062
<b>Secondary SIC:</b>	
<b>NAICS:</b>	622110

New Jersey Department of Environmental Protection  
Facility Profile (General)

**Contact Type:** Air Permit Information Contact

**Organization:** St. Peter's University Hospital

**Org. Type:** Hospital

**Name:** Doug Boyler

**NJ EIN:** 22148733020

**Title:** Chief Engineer

**Phone:** (732) 745-8594 x

**Mailing Address:** 254 Easton Ave.

**Fax:** ( ) - x

New Brunswick, NJ 08901

**Other:** ( ) - x

**Type:**

**Email:** dboyler@saintpetersuh.com

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**Contact Type:** Consultant

**Organization:** Applied Resources Technology

**Org. Type:** Individually Owned

**Name:** Adam Sigerson

**NJ EIN:** 22287635900

**Title:** Project Manager

**Phone:** (845) 626-4894 x

**Mailing Address:** 306 Clinton St.

**Fax:** ( ) - x

Brooklyn, NY 11201

**Other:** ( ) - x

**Type:**

**Email:** als7@tellurian.net

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**Contact Type:** Fees/Billing Contact

**Organization:** Saint Peter's Univeristy Hospital

**Org. Type:** Hospital

**Name:** Doug Boyler

**NJ EIN:** 22148733020

**Title:** Chief Engineer

**Phone:** (732) 745-8594 x

**Mailing Address:** 254 Easton Ave.

**Fax:** ( ) - x

New Brunswick, NJ 08901

**Other:** ( ) - x

**Type:**

**Email:** dboyler@saintpetersuh.com

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

**Contact Type: Operator**

**Organization:** St. Peter's University Hospital

**Org. Type:** Corporation

**Name:** Garrick Stoldt

**NJ EIN:** 22148733020

**Title:** Chief Financial Officer

**Phone:** (732) 745-8580 x

**Mailing Address:** 254 Easton Ave.

**Fax:** ( ) - x

New Brunswick, NJ 08901

**Other:** ( ) - x

**Type:**

**Email:** gstoldt@saintpetersuh.com

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

**Organization:** St. Peter's University Hospital

**Org. Type:** Corporation

**Name:** Garrick Stoldt

**NJ EIN:** 22148733020

**Title:** Chief Financial Officer

**Phone:** (732) 745-8580 x

**Mailing Address:** 254 Easton Ave.

**Fax:** ( ) - x

New Brunswick, NJ 08901

**Other:** ( ) - x

**Type:**

**Email:** gstoldt@saintpetersuh.com

-----  
**Contact Type: Responsible Official**

**Organization:** St. Peter's University Hospital

**Org. Type:** Corporation

**Name:** Garrick Stoldt

**NJ EIN:** 22148733020

**Title:** Chief Financial Officer

**Phone:** (732) 745-8580 x

**Mailing Address:** 254 Easton Ave.

**Fax:** ( ) - x

New Brunswick, NJ 08901

**Other:** ( ) - x

**Type:**

**Email:** gstoldt@saintpetersuh.com

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	Cooling Towers (2)	Other Equipment	Plant Area	0.000	0.000	0.000	0.000	3.270	3.270	0.000	0.00000000	0.000
IS2	#2 Fuel Oil Storage Tanks (2) (>10,000 gal, Non-Applicable VOC with Vapor Pressure < 0.02 psia)	Storage Vessel	Plant Area	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
Total				0.000	0.000	0.000	0.000	3.270	3.270	0.000	0.00000000	0.000

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

<b>Equip. NJID</b>	<b>Facility's Designation</b>	<b>Equipment Description</b>	<b>Equipment Type</b>	<b>Certificate Number</b>	<b>Install Date</b>	<b>Grand- Fathered</b>	<b>Last Mod. (Since 1968)</b>	<b>Equip. Set ID</b>
E1	Boiler #1	B&W Boiler #1	Boiler	PCP960001	6/1/1972	No	6/1/1972	
E2	Boiler #2	B&W Boiler #2	Boiler	PCP960001	6/1/1983	No	6/1/1983	
E5	Generator #4	1000 kW Generator #4	Emergency Generator	PCP960004	3/1/1992	No	3/1/1992	
E6	Generator #5	1000 kW Generator #5	Emergency Generator	PCP960005	3/1/1992	No	3/1/1992	
E7	Generator #3	600 kW Generator #3	Emergency Generator	PCP960003	6/1/1989	No	6/1/1989	
E12	CB Boiler #1	Cleaver Brooks 5.23 MMBTU/hr Package Boiler	Boiler	PCP000001	8/15/1999	No	8/15/1999	
E13	CB Boiler #2	Cleaver Brooks 5.23 MMBTU/hr Package Boiler	Boiler	PCP000001	8/15/1999	No	8/15/1999	
E14	Generator #6	Caterpillar 3406 Generator Set	Emergency Generator	PCP000003	8/15/1999	No	8/31/2000	
E15	Caterpillar	17.47 MMBTU/hr (HHV) Engine (2763 BHP)	Stationary Reciprocating Engine	BOP170002	12/1/2017	No	12/1/2017	

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E1 (Boiler)  
Print Date: 8/15/2024

Make:	Boiler #1
Manufacturer:	Babcock & Wilcox
Model:	FM-61-B
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	49.50
Boiler Type:	Package
Utility Type:	Non-Utility
Output Type:	Steam Only
Steam Output (lb/hr):	40,000.00
Fuel Firing Method:	Other firing method
Description (if other):	Register Burner
Draft Type:	Forced
Heat Exchange Type:	Indirect

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

Low NOx Burner:	<input type="checkbox"/> Type:	
Staged Air Combustion:	<input type="checkbox"/>	
Flue Gas Recirculation (FGR):	<input checked="" type="checkbox"/> Amount (%):	10.00

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

Yes

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

Yes

Comments:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E2 (Boiler)  
Print Date: 8/15/2024

Make:	Boiler #2
Manufacturer:	Babcock & Wilcox
Model:	FM-61-B
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	49.50
Boiler Type:	Package
Utility Type:	Non-Utility
Output Type:	Steam Only
Steam Output (lb/hr):	40,000.00
Fuel Firing Method:	Other firing method
Description (if other):	Register Burner
Draft Type:	Forced
Heat Exchange Type:	Indirect

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

Low NOx Burner:	<input type="checkbox"/> Type:	
Staged Air Combustion:	<input type="checkbox"/>	
Flue Gas Recirculation (FGR):	<input checked="" type="checkbox"/> Amount (%):	10.00

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

Yes

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

Yes

Comments:



17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E5 (Emergency Generator)  
Print Date: 8/15/2024

Make: Caterpillar  
Manufacturer: Caterpillar  
Model: 3508-1000kW

Maximum rated Gross Heat  
Input (MMBtu/hr-HHV): 9.10

Will the equipment be used  
in excess of 500 hours per  
year?  
☐ Yes  
☒ No

Have you attached a  
diagram showing the  
location and/or the  
configuration of this  
equipment?  
☒ Yes  
☐ No

Have you attached any  
manuf.'s data or  
specifications to aid the  
Dept. in its review of this  
application?  
☒ Yes  
☐ No

Comments:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E6 (Emergency Generator)  
Print Date: 8/15/2024

Make: Caterpillar  
Manufacturer: Caterpillar  
Model: 3508-1000kW

Maximum rated Gross Heat  
Input (MMBtu/hr-HHV): 9.10

Will the equipment be used  
in excess of 500 hours per  
year?  
☐ Yes  
☒ No

Have you attached a  
diagram showing the  
location and/or the  
configuration of this  
equipment?  
☒ Yes  
☐ No

Have you attached any  
manuf.'s data or  
specifications to aid the  
Dept. in its review of this  
application?  
☒ Yes  
☐ No

Comments:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E7 (Emergency Generator)  
Print Date: 8/15/2024

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	3412T-600kW
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	5.80
Will the equipment be used in excess of 500 hours per year?	<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 checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E12 (Boiler)  
Print Date: 8/15/2024

Make:	<input type="text" value="Cleaver Brooks"/>
Manufacturer:	<input type="text" value="Cleaver Brooks"/>
Model:	<input type="text" value="CBLE700-125-15"/>
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	<input type="text" value="5.23"/>
Boiler Type:	<input type="text" value="Package"/>
Utility Type:	<input type="text" value="Non-Utility"/>
Output Type:	<input type="text" value="Steam Only"/>
Steam Output (lb/hr):	<input type="text" value="4,313.00"/>
Fuel Firing Method:	<input type="text"/>
Description (if other):	<input type="text"/>
Draft Type:	<input type="text"/>
Heat Exchange Type:	<input type="text" value="Indirect"/>

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

Low NOx Burner:	<input checked="" type="checkbox"/>	Type: <input type="text" value="Cleaver Brooks Model LE"/>
Staged Air Combustion:	<input type="checkbox"/>	
Flue Gas Recirculation (FGR):	<input type="checkbox"/>	Amount (%): <input type="text"/>

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:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E13 (Boiler)  
Print Date: 8/15/2024

Make:	<input type="text" value="Cleaver Brooks"/>
Manufacturer:	<input type="text" value="Cleaver Brooks"/>
Model:	<input type="text" value="CBLE700-125-15"/>
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	<input type="text" value="5.23"/>
Boiler Type:	<input type="text" value="Package"/>
Utility Type:	<input type="text" value="Non-Utility"/>
Output Type:	<input type="text" value="Steam Only"/>
Steam Output (lb/hr):	<input type="text" value="4,313.00"/>
Fuel Firing Method:	<input type="text"/>
Description (if other):	<input type="text"/>
Draft Type:	<input type="text"/>
Heat Exchange Type:	<input type="text" value="Indirect"/>

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

Low NOx Burner:	<input checked="" type="checkbox"/>	Type: <input type="text" value="Cleaver Brooks Model LE"/>
Staged Air Combustion:	<input type="checkbox"/>	
Flue Gas Recirculation (FGR):	<input type="checkbox"/>	Amount (%): <input type="text"/>

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:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E14 (Emergency Generator)  
Print Date: 8/15/2024

Make: Caterpillar  
Manufacturer: Caterpillar  
Model: 3406

Maximum rated Gross Heat  
Input (MMBtu/hr-HHV): 3.20

Will the equipment be used  
in excess of 500 hours per  
year?

☐ Yes  
☒ No

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

☒ Yes  
☐ No

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

☒ Yes  
☐ No

Comments:

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 E15 (Stationary Reciprocating Engine)  
Print Date: 8/15/2024

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3516H
Maximum Rated Gross Heat Input (MMBtu/hr):	17.47
Class:	Lean Burn
Description:	
Duty:	Base Loaded
Description:	
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	4-stroke
Power Output (BHP):	2763
Electric Output(KW):	1966
Compression Ratio:	12.1
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1500
Engine Exhaust Temperature (°F):	758
Air to Fuel Ratio at Peak Load:	12.1
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	1.73
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	5696
Output Type:	Cogeneration
Heat to Power Ratio:	1
Is the Engine Using a Turbocharger?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using (check all that apply):	
A Prestratified Charge (PSC)	<input type="checkbox"/> A NOx Converter <input checked="" type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/> Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/> Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>
Description:	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	

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

SAINT PETER'S UNIVERSITY HOSPITAL (17913)  
BOP190002

Date: 10/15/2024

New Jersey Department of Environmental Protection  
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1	CHP SCR	CHP Engine SCR	Selective Catalytic Reduction	12/1/2017			
CD2	CHP OxiCat	CHP Engine Oxidation Catalyst	Oxidizer (Catalytic)	12/1/2017			



17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 CD1 (Selective Catalytic Reduction)  
Print Date: 8/15/2024

Make:	Steuler Anlagenbau GmbH & Co.KG
Manufacturer:	Steuler Anlagenbau GmbH & Co.KG
Model:	DeNOx-3516H/2763
Minimum Temperature at Catalyst Bed (°F):	522
Maximum Temperature at Catalyst Bed (°F):	932
Minimum Temperature at Reagent Injection Point (°F):	522
Maximum Temperature at Reagent Injection Point (°F):	950
Type of Reagent:	Urea
Description:	
Chemical Formula of Reagent:	NH2-CO-NH2
Minimum Reagent Charge Rate (gpm):	0.1
Maximum Reagent Charge Rate (gpm):	0.1
Minimum Concentration of Reagent in Solution (% Volume):	40
Minimum NOx to Reagent Mole Ratio:	1.8
Maximum NOx to Reagent Mole Ratio:	2
Maximum Anticipated Ammonia Slip (ppm):	10
Type of Catalyst:	Homogeneous Extended Ceramic
Volume of Catalyst (ft³):	32
Form of Catalyst:	12 x 12 x 12 inch ceramic
Anticipated Life of Catalyst:	25000
Units:	hours
Have you attached a catalyst replacement schedule?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Method of Determining Breakthrough:	NOx analyzer in SCR controls will detect elevated NOx. An alarm will be triggered.
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:	The control device will be operated in strict accordance with manufacturer specifications and requirements.
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input checked="" type="radio"/> Yes <input 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

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 CD1 (Selective Catalytic Reduction)  
Print Date: 8/15/2024

Comments:

The minimum and maximum charge rates above are in gallons per minute and have a restriction on range of 0.1 to 9999.9 for the field. The actual charge rates are both lower than 0.1, so they are specified as 0.1 above. See the values below for actual charge rates in gallons per hour.

Minimum Reagent Charge Rate (gallons per hour):  
0.385

Maximum Reagent Charge Rate (gallons per hour):  
2.31

17913 SAINT PETER'S UNIVERSITY HOSPITAL BOP190002 CD2 (Oxidizer (Catalytic))  
Print Date: 8/15/2024

Make:	Steuler Anlagenbau GmbH & Co.KG
Manufacturer:	Steuler Anlagenbau GmbH & Co.KG
Model:	DeNOx-3516H/2763
Minimum Inlet Temperature (°F):	572
Maximum Inlet Temperature (°F)	1112
Minimum Outlet Temperature (°F)	572
Maximum Outlet Temperature (°F):	1202
Minimum Residence Time (sec)	0.05
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	20
Minimum Pressure Drop Across Catalyst (psi):	0.072
Maximum Pressure Drop Across Catalyst (psi):	0.144
Catalyst Material:	Ceramic honeycomb substrate with a wash coat and PM coating
Form of Catalyst:	Honeycomb
Description:	
Minimum Expected Life of Catalyst:	16000
Units:	hours
Volume of Catalyst (ft³):	5.1
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:	Strict accordance with manufacturer specifications.
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 checked="" type="radio"/> Yes <input 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:	

**SAINT PETER'S UNIVERSITY HOSPITAL (17913)**  
**BOP190002**

Date: 10/15/2024

**New Jersey Department of Environmental Protection**  
**Emission Points Inventory**

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT1	B-001	U1, Two Babcock & Wilcox Boilers	Round	54	52	155	475.0	350.0	600.0	25,000.0	5,000.0	34,000.0	Up	
PT3	G-003	Generator #3 Stack	Round	8	20	150	1,100.0	1,100.0	1,100.0	5,229.0	5,229.0	5,229.0	Up	
PT4	G-004	Generator #4 Stack	Round	12	20	140	995.0	995.0	995.0	8,011.0	8,011.0	8,011.0	Up	
PT5	G-005	Generator #5 Stack	Round	12	20	140	995.0	995.0	995.0	8,011.0	8,011.0	8,011.0	Up	
PT10	CB1 Stack	CB1 & CB2 Boiler Stack	Round	18	65	50	260.0	260.0	260.0	1,900.0	1,900.0	1,900.0	Up	
PT11	Gen #6 Stack	Generator #6 Stack	Round	6	15	50	1,002.0	1,002.0	1,002.0	2,452.0	2,452.0	2,452.0	Up	
PT12	CHP Stack	CHP Unit Stack	Round	36	35	150	758.0	758.0	898.0	10,875.0	6,909.0	12,139.0	Up	

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

U 1 Boilers 1&2 Two 49.5 MMBtu/hr boilers, venting into 1 stack, primary fuel is natural gas, backup fuel is #2 FO. Exempt from MACT Subpart JJJJJJ and NSPS Sub Dc.

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	Boiler 1 NG	Boiler 1 Firing Natural Gas	Normal - Steady State	E1		PT1	1-03-006-02	0.0	8,760.0		2,500.0	17,000.0	350.0	600.0
OS2	Boiler 2 NG	Boiler 2 Firing Natural Gas	Normal - Steady State	E2		PT1	1-03-006-02	0.0	8,760.0		2,500.0	17,000.0	350.0	600.0
OS3	Boiler 1 FO	Boiler 1 Firing #2 Fuel Oil	Normal - Steady State	E1		PT1	1-03-005-01		48.0		2,500.0	17,000.0	350.0	600.0
OS4	Boiler 2 FO	Boiler 2 Firing #2 Fuel Oil	Normal - Steady State	E2		PT1	1-03-005-01		48.0		2,500.0	17,000.0	350.0	600.0

U 3 Em Dsl G 4 Emergency Diesel Generator #4 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

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	Generator 4	Emergency Generator #4, 9.1 MMBTU/hr, 1000 kW	Normal - Steady State	E5		PT4	2-03-001-01		100.0		8,011.0	8,011.0	995.0	995.0

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U 4   Em Dsl G 5   Emergency Diesel Generator #5 (1000 kW, 9.1 MMBTU/hr, Caterpillar Model 3508)

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	Generator 5	Emergency Generator #5, 9.1 MMBTU/hr, 1000 kW	Normal - Steady State	E6		PT5	2-03-001-01		100.0		8,011.0	8,011.0	995.0	995.0

U 5   Em Dsl G 3   Emergency Diesel Generator #3 (600 kW, 5.8 MMBtu/hr, Caterpillar Model 3412T)

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	Generator 3	Emergency Generator #3, 5.8 MMBTU/hr, 600 kW	Normal - Steady State	E7		PT3	2-03-001-01		100.0		5,229.0	5,229.0	1,100.0	1,100.0

U 9   CB Boilers   Two 5.23 MMBtu/hr Package Boilers (Cleaver Brooks) venting into one stack

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	CB1 SState	Boiler CB1, Natural Gas	Normal - Steady State	E12		PT10	1-03-006-03	0.0	8,760.0		950.0	950.0	260.0	260.0

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U 9   CB Boilers   Two 5.23 MMBtu/hr Package Boilers (Cleaver Brooks) venting into one stack

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.
OS2	CB2 SState	Boiler CB2, Natural Gas	Normal - Steady State	E13		PT10	1-03-006-03	0.0	8,760.0		950.0	950.0	260.0	260.0

U 10   Em Dsl G 6   Emergency Diesel Generator #6 (400 kW, 3.2 MMBtu/hr, Caterpillar Model 3406)

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	Gen #6 SStat	Emergency Generator #6, 3.2 MMBTU/hr, 400 kW	Normal - Steady State	E14		PT11	2-03-001-01		100.0		2,452.0	2,452.0	1,002.0	1,002.0

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U 11 Caterpillar GOP-006 CHP Engine 2763 BHP

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	Caterpillar	17.47 MMBTU/hr (HHV) CHP Engine (2763 BHP), Natural Gas, Normal Operation, Controlled by CD1 SCR and CD2 Oxidation Catalyst	Normal - Steady State	E15	CD1 (P) CD2 (P)	PT12	2-02-002-54	0.0	8,760.0		6,909.0	12,139.0	758.0	898.0