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

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHAWN M. LATOURETTE
COMMISSIONER

Air Pollution Control Operating Permit
Renewal with Significant Modification

Permit Activity Number: BOP190001 **Program Interest Number: 02620**

Mailing Address	Plant Location
DOMINIC DISALVO DIRECTOR OF ENGINEERING BERGEN CNTY UTILITIES AUTH PO BOX 9 - MEHRHOF RD Little Ferry, NJ 07643	BERGEN CNTY UTIL AUTH WTP Mehrhof Rd Little Ferry Bergen County

Initial Operating Permit Approval Date: **6/2/2005**

Operating Permit Approval Date: **DRAFT**

Operating Permit Expiration Date: **6/1/2020 (Operating Under Application Shield)**

AUTHORITY AND APPLICABILITY

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

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

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

PERMIT SHIELD

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

COMPLIANCE SCHEDULES

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

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

ACCESSING PERMITS

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

HELPLINE

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

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

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

COMPLIANCE ASSURANCE MONITORING

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

ADMINISTRATIVE HEARING REQUEST

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

If you have any questions regarding this permit approval, please call Nipul Patel at (609) 777-2858.

Approved by:

_____
Shafi Ahmed

Enclosure

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

Facility Name: BERGEN CNTY UTIL AUTH WTP
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Section A

Facility Name: BERGEN CNTY UTIL AUTH WTP
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POLLUTANT EMISSIONS SUMMARY

Table 1: Total emissions from all Significant Source Operations[1] at the facility.

Facility's Potential Emissions from all Significant Source Operations (tons per year)										
Source Categories	VOC (total)	NO_x	CO	SO_2	TSP (total)	PM_{10} (total)	$PM_{2.5}$[2] (total)	Pb	HAPs* (total)	CO_2e[3]
Emission Units Summary	16.99	23.93	54.35	11.68	3.33	3.33	NA	NA	4.63	
Batch Process Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Group Summary	8.54	34.14	20.31	12.38	8.54	8.54	8.54	NA	NA	
Total Emissions	25.53	61.07	74.66	24.06	11.87	11.87	8.54	NA	4.63	64,037

Table 2: Estimate of total emissions from all Insignificant Source Operations[1] and total emissions from Non-Source Fugitives at the facility.

Emissions from all Insignificant Source Operations and Non-Source Fugitive Emissions (tons per year)									
Source Categories	VOC (total)	NO_x	CO	SO_2	TSP (total)	PM_{10} (total)	$PM_{2.5}$[2] (total)	Pb	HAPs (total)
Insignificant Source Operations	35.18	NA	NA	NA	1.56	1.56	1.56	NA	NA
Non-Source Fugitive Emissions[4]	1.38	NA	NA	NA	NA	NA	NA	NA	0.08

VOC: Volatile Organic Compounds
NOx: Nitrogen Oxides
CO: Carbon Monoxide
SO_2: Sulfur Dioxide
TSP: Total Suspended Particulates
Other: Any other air contaminant regulated under the Federal CAA
PM_{10}: Particulates under 10 microns
$PM_{2.5}$: Particulates under 2.5 microns
Pb: Lead
HAPs: Hazardous Air Pollutants
CO_2e: Carbon Dioxide equivalent
N/A: Indicates the pollutant is not emitted or is emitted below the reporting threshold specified in N.J.A.C. 7:27-22, Appendix, Table A and N.J.A.C. 7:27-17.9(a).

*Emissions of individual HAPs are provided in Table 3 on the next page.
Emissions of "Other" air contaminants are provided in Table 4 on the next page.

[1] Significant Source Operations and Insignificant Source Operations are defined at N.J.A.C. 7:27-22.1.
[2] $PM_{2.5}$ has been included in air permitting rules as of December 9, 2017. Consequently, $PM_{2.5}$ totals in this section may not be up to date. The Department is in the process of updating these limits during each permit modification, and the entire permit will be updated at the time of permit renewal.
[3] Total CO_2e emissions for the facility.
[4] Non-Source Fugitive Emissions are included if the facility falls into one or more categories listed at N.J.A.C. 7:27-22.2(a)2.

Section A

Facility Name: BERGEN CNTY UTIL AUTH WTP
Program Interest Number: 02620
Permit Activity Number: BOP190001

POLLUTANT EMISSIONS SUMMARY

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

HAP	TPY
Acrolein	0.28
Formaldehyde	4.35

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

Other Air Contaminant	TPY
Ammonia	378.0
Methane	286.49

[5] Do not sum the values below for the purpose of establishing a total HAP potential to emit. See previous page for the allowable total HAP emissions.

Section B

Facility Name: BERGEN CNTY UTIL AUTH WTP
Program Interest Number: 02620
Permit Activity Number: BOP190001

GENERAL PROVISIONS AND AUTHORITIES

1. No permittee shall allow any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in a quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or which would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant that occurs only in areas over which the permittee has exclusive use or occupancy. Requirements relative only to nuisance situations, including odors, are not considered federally enforceable. [N.J.A.C. 7:27-22.16(g)8]

2. Any deviation from operating permit requirements which results in a release of air contaminants shall be reported to the Department as follows:

   a. If the air contaminants are released in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints, the permittee shall report the release to the Department:

      i. Immediately on the Department hotline at 1-(877) 927-6337, pursuant to N.J.S.A. 26:2C-19(e); and

      ii. As part of the compliance certification required in N.J.A.C. 7:27-22.19(f). However, if the deviation is identified through source emissions testing, it shall be reported through the source emissions testing and monitoring procedures at N.J.A.C. 7:27-22.18(e)3; or

   b. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, the permittee shall report the release to the Department as part of the compliance certification required in N.J.A.C. 7:27-22.19(f), except for deviations identified by source emissions testing reports, which shall be reported through the procedures at N.J.A.C. 7:27-22.18(e)3; or

   c. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, and the permittee intends to assert the affirmative defense afforded by N.J.A.C. 7:27-22.16(l), the violation shall be reported by 5:00 PM of the second full calendar day following the occurrence, or of becoming aware of the occurrence, consistent with N.J.A.C. 7:27-22.16(l). [N.J.A.C. 7:27-22.19(g)]

3. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any non-compliance with a permit condition constitutes a violation of the New Jersey Air Pollution Control Act N.J.S.A. 26:2C-1 et seq., or the CAA, 42 U.S.C. §7401 et seq., or both, and is grounds for enforcement action; for termination, revocation and reissuance, or for modification of the operating permit; or for denial of an application for a renewal of the operating permit. [N.J.A.C. 7:27-22.16(g)1]

4. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of its operating permit. [N.J.A.C. 7:27-22.16(g)2]

5. This operating permit may be modified, terminated, or revoked for cause by the EPA pursuant to 40 CFR 70.7(g) and revoked or reopened and modified for cause by the Department pursuant to N.J.A.C. 7:27-22.25. [N.J.A.C. 7:27-22.16(g)3]

6. The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this operating permit; or to determine compliance with the operating permit. [N.J.A.C. 7:27-22.16(g)4]

7. The filing of an application for a modification of an operating permit, or of a notice of planned changes or anticipated non-compliance, does not stay any operating permit condition. [N.J.A.C. 7:27-22.16(g)5]

8. The operating permit does not convey any property rights of any sort, or any exclusive privilege. [N.J.A.C. 7:27-22.16(g)6]

9. Upon request, the permittee shall furnish to the Department copies of records required by the operating permit to be kept. [N.J.A.C. 7:27-22.16(g)7]

10. a. For emergencies (as defined at 40 CFR 70.6(g)(1)) that result in non-compliance with any promulgated federal technology-based standard such as NSPS, NESHAPS, or MACT, a federal affirmative defense is available, pursuant to 40 CFR 70. To assert a federal affirmative defense, the permittee must use the procedures set forth in 40 CFR 70. The affirmative defense provisions described below may not be applied to any situation that caused the Facility to exceed any federally delegated regulation, including but not limited to NSPS, NESHAP, or MACT.

    b. For situations other than those covered above, an affirmative defense is available for a violation of a provision or condition of the operating permit only if:

        i. The violation occurred as a result of an equipment malfunction, an equipment startup or shutdown, or during the performance of necessary equipment maintenance; and

        ii. The affirmative defense is asserted and established as required by N.J.S.A. 26:2C-19.1 through 19.5 and any implementing rules. [N.J.A.C. 7:27-22.16(l)]

11. In the event of a challenge to any part of this operating permit, all other parts of the permit shall continue to be valid. [N.J.A.C. 7:27-22.16(f)]

12. Each owner and each operator of any facility, source operation, or activity to which this permit applies is responsible for ensuring compliance with all requirements of N.J.A.C. 7:27-22. If the owner and operator are separate persons, or if there is more than one owner or operator, each owner and each operator is jointly and severally liable for any fees due under N.J.A.C. 7:27-22, and for any penalties for violation of N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.3]

13. The permittee shall ensure that no air contaminant is emitted from any significant source operation at a rate, calculated as the potential to emit, that exceeds the applicable threshold for reporting emissions set forth in the Appendix to N.J.A.C. 7:27-22 or 7:27-17.9(a), unless emission of the air contaminant is authorized by this operating permit. [N.J.A.C. 7:27-22.3(c)]

14. Consistent with the provisions of N.J.A.C. 7:27-22.3(e), the permittee shall ensure that all requirements of this operating permit are met. In the event that there are multiple emission limitations, monitoring, recordkeeping, and/or reporting requirements for a given source operation, the facility must comply with all requirements, including the most stringent.

15. Consistent with the provisions of N.J.A.C. 7:27-22.3(s), Except as otherwise provided in this subchapter, the submittal of any information or application by a permittee including, but not limited to, an application or notice for any change to the operating permit, including any administrative amendment, any minor or significant modification, renewal, a notice of a seven-day notice change, a notice of past or anticipated noncompliance, does not stay any operating permit condition, nor relieve a permittee from the obligation to obtain other necessary permits and to comply with all applicable Federal, State, and local requirements.

16. Applicable requirements derived from an existing or terminated consent decree with EPA will not be changed without advance consultation by the Department with EPA. N.J.A.C. 7:27-22.3(uu).

17. Unless specifically exempted from permitting, temporary mobile equipment for short-term activities may be periodically used at major facilities, on site for up to 90 days if the requirements listed below, (a) through (h) are satisfied.

    a. The permittee will ensure that the temporary mobile equipment will not be installed permanently or used permanently on site.

    b. The permittee will ensure that the temporary mobile equipment will not circumvent any State or Federal rules and regulations, even for a short period of time, and the subject equipment will comply with all applicable performance standards.

    c. The permittee cannot use temporary mobile equipment unless the owner or operator of the subject equipment has obtained and maintains an approved Air Pollution Control Permit, issued pursuant to N.J.A.C. 7:27-8 or 22, prior to bringing the temporary mobile equipment to operate at the major facility.

    d. The permittee is responsible for ensuring the temporary mobile equipment's compliance with the terms and conditions specified in its approved Air Pollution Control Permit when the temporary mobile equipment operates on the property of the permittee.

    e. The permittee will ensure that temporary mobile equipment utilized for short-term activities will not operate on site for more than a total of 90 days during any calendar year.

    f. The permittee will keep on site a list of temporary mobile equipment being used at the facility with the start date, end date, and record of the emissions from all such equipment (amount and type of each air contaminant) no later than 30 days after the temporary mobile equipment completed its job in accordance with N.J.A.C. 7:27-22.19(i)3.

    g. Emissions from the temporary mobile equipment must be included in the emission netting analysis required of the permittee by N.J.A.C. 7:27-18.7. This information is maintained on site by the permittee and provided to the Department upon request in accordance with existing applicable requirements in the FC Section of its Title V permit.

    h. Where short-term activities (employing temporary mobile equipment) will reoccur on at least an annual basis, the permittee is required to include such activities (and the associated equipment) within one year of the first use, in its Title V permit through the appropriate modification procedures.

18. Consistent with the provisions of N.J.A.C. 7:27-22.9(c), the permittee shall use monitoring of operating parameters, where required by the compliance plan, as a surrogate for direct emissions testing or monitoring, to demonstrate compliance with applicable requirements.

19. The permittee is responsible for submitting timely and administratively complete operating permit applications:

    Administrative Amendments [N.J.A.C. 7:27-22.20(c)];
    Seven-Day Notice changes [N.J.A.C. 7:27-22.22(e)];
    Minor Modifications [N.J.A.C. 7:27-22.23(e)];
    Significant Modifications [N.J.A.C. 7:27-22.24(e)]; and
    Renewals [N.J.A.C. 7:27-22.30(b).

20. The operating permit renewal application consists of a RADIUS application and the application attachment available at the Department's website http://www.nj.gov/dep/aqpp/applying.html (Attachment to the RADIUS Operating Permit Renewal Application). Both the RADIUS application and the Application Attachment, along with any other supporting documents must be submitted using the Department's Portal

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

21. For all source emissions testing performed at the facility, the phrase "worst case conditions without creating an unsafe condition" used in the enclosed compliance plan is consistent with EPA's National Stack Testing Guidance, dated April 27, 2009, where all source emission testing performed at the facility shall be under the representative (normal) conditions that:

    i. Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and

    ii. Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.

22. Consistent with EPA's National Stack Testing Guidance and Technical Manual 1004, a facility may not stop an ongoing stack test because it would have failed the test unless the facility also ceases operation of the equipment in question to correct the issue. Stopping an ongoing stack test in these instances will be considered credible evidence of emissions non-compliance.

23. Each permittee shall maintain records of all source emissions testing or monitoring performed at the facility and required by the operating permit in accordance with N.J.A.C. 7:27-22.19. Records shall be maintained, for at least five years from the date of each sample, measurement, or report. Each permittee shall maintain all other records required by this operating permit for a period of five years from the date each record is made. At a minimum, source emission testing or monitoring records shall contain the information specified at N.J.A.C. 7:27-22.19(b). [N.J.A.C. 7:27-22.19(a) and N.J.A.C. 7:27-22.19(b)]

24. A Permittee may seek the approval of the Department for a delay in testing required pursuant to this permit by submitting a written request to the appropriate Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.18(k). A Permittee may also seek advanced approval for a longer period for submittal of a source emissions test report required by the permit by submitting a request to the Department's Regional Enforcement Office in accordance with N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.18(k) and N.J.A.C. 7:27-22.19]

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

Section C

Facility Name: BERGEN CNTY UTIL AUTH WTP
Program Interest Number: 02620
Permit Activity Number: BOP190001

STATE-ONLY APPLICABLE REQUIREMENTS

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

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

SECTION	SUBJECT ITEM	ITEM #	REF. #
B	---	1	---
B	---	10b	---
D	FC	---	3
D	FC	---	9

Section D

Facility Name: BERGEN CNTY UTIL AUTH WTP
Program Interest Number: 02620
Permit Activity Number: BOP190001

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

		E3802) >100,000 gal capacity each, controlled by Enclosed Flare (CD3802)	
U40	DS Thck dwtg	Digested Sludge Thickening/ Dewatering (E4001 - E4013) controlled by Carbon Adsorber System (CD4001)	62
U41	DS Thck PLM	Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)	66
U42	WAS thickeng	Waste Activated Sludge (WAS) Thickening (E4201 - E4205)	71
U43	Cogen Unit	Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn	74
U44	Cogen Carb	Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit	122
U45	Const. Eng.	Construction Engine (E4501), 10.39 MMBtu/hr, Diesel fired	129
U46	Boiler ADM	Non-Utility Boiler (E4601), 1.46 MMBtu/hr, #2 fuel & Natural Gas fired, at Administration Building, Subject to MACT JJJJJJ	133

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 210001

Description of Modifications:

This is the five year Renewal with Significant Modification for the Title V Operating Permit.
1. Added Insignificant Source IS 13 which is a 500-gallon waste oil tank.
2. Emission Unit U13 will be changed to replace current flares (CD1306 and CD1307) with new flares (CD1308 and CD1309). The flares will be installed at a different location with new Emission Points (PT1308 and PT1309). All digester gas generated from the digesters, that will not be used in boilers E601, E602 and E603 and the Cogen unit (E4301, E4302 and E5404) will flow to the new flares.
3. Proposed storage tanks E1306 and E1307 are to be removed from the permit. They were never built.
4. Flares CD1306 and CD1307 which include respective emission points PT1306 and PT1307 need to remain in operation until the new flares CD1308 and CD 1309 with respective emission points PT1308 and PT1309 commence operation.
5. Operating Scenarios OS1 through OS10 will be revised for emissions flowing through flares CD1308 and CD1309 and Emission Points PT1308 and PT1308. Operating Scenarios OS11 through OS14 are to be removed.
6. Please change following in Compliance Plan for Emission Unit U13, OS Summary:
Reference No. 8 - revised Gaseous Fuel Usage to <-= 474 MMft3/yr.
Reference No. 9 - revised Maximum Gross Input <= 18.4 MMBTU/hr. per flare.
Reference No. 10 - revised VOC (Total) <= 12.895 tons per year.
Reference No. 11 - revised NOx <= 9.67 tons per year.
Reference No. 12 - revised CO <= 48.355 tons per year.
Reference No. 13 - revised Methane <= 51.035 tons per year.
Reference No. 14 - revised SO2 <= 7.925 tons per year.
Reference No. 22 - revised VOC (total) <= 1.472 lb./hr. per flare
Reference No. 23 - revised NOx <= 1.104 lb./hr. per flare.
Reference No. 24 - revised CO <= 5.52 lb./hr. per flare.
Reference No. 25 - revised SO2 <= 0.905 lb./hr. per flare.
Reference No. 28 - revised Methane <= 5.83 lb./hr. per flare.
7. Removed Reference Nos. 15, 16, 17, 26 and 27 because TSP, PM-10 and H2S emit deminimus rates.
8. Remove IS2 - 0.296 Equipment Paint Spray Booth from Insignificant Sources Inventory.
9. Added IS12 and IS13 - Final Settling Tank Polymer Feed System.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **FC**

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

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

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS1 Five Kerosene Underground Storage Tanks, Four No. 2 fuel oil tanks and One diesel tank with V.P. <0.02 psia <10,000 gallons**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS3 Vehicle Maintenance Parts Washer <6.0 Sq. Ft openning.**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	A heated open top vehicle maintenance parts washer must have a top opening less than 6 square feet (0.56 square meters). [N.J.A.C. 7:27-22.1]	None.	None.	None.
2	A heated open top vehicle maintenance parts washer must use less than 2 gals of solvent containing <= 5% VOC. [N.J.A.C. 7:27-16.6(j)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **IS7 Aeration Tanks and Settling Basins <100 ppb Toxics and <3,500 ppb VOCs in the waste water**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum wastewater concentration of these insignificant sources shall be < 100 ppb TXS and < 3500 ppb VOCs [N.J.A.C. 7:27-22.1]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Subject Item: **GR1 Three Cogen Units-U43 (E4301, E4302 & E4303) and Boilers-U6 (E601, E602 & Warehouse Boiler)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 8.54 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [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). The permittee shall add actual emissions from emission units U6 and U43 each month during operation. The procedure of calculation of actual emissions from emission units have been outlined in the OS Summary for each emission unit. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
2	NOx (Total) <= 34.14 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall add actual emissions from emission units U6 and U43 each month during operation. The procedure of calculation of actual emissions from emission units have been outlined in the OS Summary for each emission unit. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
3	CO <= 20.31 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [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). The permittee shall add actual emissions from emission units U6 and U43 each month during operation. The procedure of calculation of actual emissions from emission units have been outlined in the OS Summary for each emission unit. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	SO2 <= 12.65 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall add actual emissions from emission units U6 and U43 each month during operation. The procedure of calculation of actual emissions from emission units have been outlined in the OS Summary for each emission unit. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
5	TSP <= 8.53 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). The permittee shall add actual emissions from emission units U6 and U43 each month during operation. The procedure of calculation of actual emissions from emission units have been outlined in the OS Summary for each emission unit. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
6	Total HAPs <= 4.6 tons/yr. Permittee's self-imposed maximum annual emission cap for U6 and U43, based on Significant Modification BOP #140002. This emissions cap becomes effective from the date of the approved operating permit. [N.J.A.C. 7:27-22.16(a)]	Total HAPs: 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)]	Total HAPs: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculations for U6 and U43 each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Sulfur Content in Fuel <= 200 ppmvd measured as H2S in digester gas used in boilers (U6) and cogenertion unit (U43). [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. gas) each month during operation, based on an instantaneous determination using Jerome Meter or equivalent as approved by the Emission Measurement Section (EMS). [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Subject to Federal Requirements: * 40 CFR 63, MACT Subpart A - General Provisions * 40 CFR 63, MACT Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63]	None.	None.	None.
2	Sulfur Content in Fuel <= 5,184 ppmv for digester gas used in boilers (U6) and cogenertion unit (U43). [N.J.A.C. 7:27-7.2(i)] (surrogate for: Sulfur Compounds other than S02, S03 and H2S04)	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
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 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.
5	Sulfur Content in Fuel <= 200 ppmv. Measured as H2S in digester gas used in boilers (U6) and cogeneration unit (U43), based on Significant Modification BOP140002 (see GR1). (Surrogate for: Sulfur Compounds other than SO2, SO3 and H2SO4). [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. gas) each month during operation, based on an instantaneous determination using Jerome Meter or equivalent as approved by the Emission Measurement Section (EMS). [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Sulfur content in fuel. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Digester Gas: Annual Digester Gas consumption limit for all water heaters and Warehouse boiler, from MM BOP120001 Application <= 238.3 MM CF/yr. [N.J.A.C. 7:27-22.16(a)]	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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record fuel consumption in a logbook or readily accessible computer files. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of the SM BOP 060002. This accounting will not include any consumption during months prior to the approval of the Operating Permit. The Permittee will select month, calendar month, or production month. Once selected the period must not be changed without approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.
7	Natural Gas Usage <= 222.1 MMft^3/yr. Annual Natural Gas consumption limit for all water heaters and Warehouse boiler, from MM BOP120001 Application. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record fuel consumption in a logbook or readily accessible computer files. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of the Significant Modification (SM) BOP060002. This accounting will not include any consumption during months prior to the approval of the Operating Permit. The Permittee will select month, calendar month, or production month. Once selected the period must not be changed without approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Fuel Oil Usage <= 891,058 gal/yr. Annual distillate fuel oil consumption limit for all water heaters and Warehouse boiler, from MM BOP120001 Application. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil 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)]	Fuel Oil Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record fuel consumption in a logbook or readily accessible computer files. Gallons per any consecutive 12 months period shall be calculated by the sum of the gallons consumed during any one month added to the sum of the gallons consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of the Operating Permit. This accounting will not include any consumption during months prior to the approval of the Operating Permit. The Permittee will select month, calendar month, or production month. Once selected the period must not be changed without approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	VOC (Total) <= 0.66 tons/yr. There is also maximum annual emission cap for U6 and U43, based on the Netting Analysis for Significant Modification BOP# 060002 (SEE GR1) and from MM BOP120001 Application. [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) Calculate Tons per month emissions by using following formula: ETM = (E.F.N. * NG /month + E.F.O.*F.O./month + E.F.D *DG/month)/2000 Where: ETM = Emission in Tons/Month E.F.N. = emission factor in lbs/MM CF of Natural Gas E.F.O. = emission factors in lbs/1000 gals of Fuel Oil E.F.D. = emission factors in lbs/MM Cf of Digester Gas. N.G. = Natural gas consumption in MM CF F.O. = Fuel Oil Consumption in 1000 Gals D.G. = Digester Gas in MM Cf. . [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	NOx (Total) <= 11.92 tons/yr. There is also maximum annual emission cap for U6 and U43, based on the Netting Analysis for Significant Modification BOP# 060002 (SEE GR1) and from MM BOP120001 Application. [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) Calculate Tons per month emissions by using following formula: ETM = (E.F.N. * NG /month + E.F.O.*F.O./month + E.F.D *DG/month)/2000 Where: ETM = Emission in Tons/Month E.F.N. = emission factor in lbs/MM CF of Natural Gas E.F.O. = emission factors in lbs/1000 gals of Fuel Oil E.F.D. = emission factors in lbs/MM Cf of Digester Gas. N.G. = Natural gas consumption in MM CF F.O. = Fuel Oil Consumption in 1000 Gals D.G. = Digester Gas in MM Cf. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	CO <= 10.13 tons/yr. There is also maximum annual emission cap for U6 and U43, based on the Netting Analysis for Significant Modification BOP #060002 (SEE GR1) and from MM BOP120001 Application. [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) Calculate Tons per month emissions by using following formula: ETM = (E.F.N. * NG /month + E.F.O.*F.O./month + E.F.D *DG/month)/2000 Where: ETM = Emission in Tons/Month E.F.N. = emission factor in lbs/MM CF of Natural Gas E.F.O. = emission factors in lbs/1000 gals of Fuel Oil E.F.D. = emission factors in lbs/MM Cf of Digester Gas. N.G. = Natural gas consumption in MM CF F.O. = Fuel Oil Consumption in 1000 Gals D.G. = Digester Gas in MM Cf. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	SO2 <= 12.65 tons/yr. Annual emission rate, from MM BOP120001 Application. [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) Calculate Tons per month emissions by using following formula: ETM = (E.F.N. * NG /month + E.F.O. *FO /month + E.F.D. *DG /month) / 2000 Where: ETM = Emission in Tons/Month E.F.N. = emission factor in lbs/MM CF of Natural Gas E.F.O. = emission factors in lbs/1000 gals of Fuel Oil E.F.D. = emission factors in lbs/MM Cf of Digester Gas. NG = Natural gas consumption in MM CF FO = Fuel Oil Consumption in 1000 Gals DG = Digester Gas in MM Cf. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
13	TSP <= 0.91 tons/yr. Annual emission rate, from MM BOP120001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	PM-10 (Total) <= 0.91 tons/yr. Annual emission rate, from MM BOP120001 Application. [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
15	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 five million BTU per hour, whether or not it is located at a major NOx facility, shall adjust the combustion process annually in accordance with the procedure set forth at N.J.A.C. 7:27-19.16 and the following schedule: 1. For an industrial/commercial/institutional boiler or other indirect heat exchanger with a maximum gross heat input rate of at least five million BTU per hour, but less than 10 million BTU per hour, in the same quarter of each calendar year, beginning in 2010; 2. For an industrial/commercial/institutional boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 10 million BTU per hour, but less than 20 million BTU per hour, in the same quarter of each calendar year beginning in 2008; or 3. For an industrial/commercial/institutional boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 20 million BTU per hour or greater, in the same quarter of each calendar year beginning in 2007." (Applicable to E-601 and E-602) [N.J.A.C. 7:27-19.7(g)]	Monitored by periodic emission monitoring annually The owner or operator of the equipment or source operation shall: 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 total emissions of NOx and CO consistent with the manufacturer's specifications; 5. Measure the concentrations in the effluent stream of NOx, CO and O2 in ppmvd correctly 6. Convert the emission values of the NOx, CO and O2 concentrations measured pursuant to (a)5 above to pounds per million BTU (lb/MM BTU) according to the following formula: lb/MM BTU = ppmvd x MW x F dry factor x O2 correction factor 387,000,000 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 (if NO is measured separately from NO2 use 30 lb/lb-mole for NO); CO = 28 lb/lb-mole F dry factor for: Natural gas or Digester gas = 8,710 dscf/MM BTU Residual or fuel oil = 9,190 dscf/MM BTU O2 correction factor: (20.9%) (20.9% - O2 measured) O2 measured is percent oxygen on a dry basis. [N.J.A.C. 7:27-19.16]	Other: The owner or operator of the equipment or source operation adjusted shall ensure that each adjustment is recorded in a log book or computer data system and retained for a minimum of five years, to be made readily accessible to the Department upon request. Such record shall contain the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended, 2. The name, title and affiliation of the person whom 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 pounds per million BTU (lb/MM BTU); 7. The type and amount of fuel used over the 12 months prior to the annual adjustment; and 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 equipment or source operation. The records must be kept annually.[N.J.A.C. 7:27-19.16(b)].	Submit a report: As per the approved schedule. The owner or operator shall ensure that an annual adjustment combustion process report is submitted electronically to the Northern Regional Enforcement Office, listed on first page of this Operating Permit, within 45 days after the adjustment of the combustion process is completed, based on the gross heat input of the boiler, beginning in 2009 in the format the Department specifies at its website. The report shall contain the following information: 1.The concentration of NOx and CO in the effluent stream in ppmvd, and O2; in percent dry basis, measured before and after the adjustment of the combustion process; 2. The converted emission values in lb/MMBTU for the measurements taken before and after the adjustment of the combustion process; 3. A description of any corrective action taken as part of the combustion adjustment; and 4. The type and amount of fuel used over the 12 months prior to the annual adjustment. [N.J.A.C. 7:27-19.16]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	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: Monitor and maintain 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. 7:27-22.16(o)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted.[N.J.A.C. 7:27-19.16(e)].	None.
17	The permittee at all times must operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11205(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall keep records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11225(c)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
18	Equipment B-1 (W Boiler): The permittee shall conduct an initial tune-up no later than March 21, 2014 and subsequent once a 5-year tune-ups no later than 61 months after the previous tune-up. The tune-ups shall be conducted, as required in Table 2 to 40 CFR Part 63, Subpart JJJJJJ, and in accordance with 40 CFR 63.11223(b) as follows: (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The burner inspection may be delayed until the next scheduled unit shutdown, not to exceed 36 months (or, in case of oxygen trim system, 72 months) from the previous inspection. (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The inspection may be delayed until the next scheduled unit shutdown, not to exceed 36 months (or, in case of oxygen trim system, 72 months) from the previous inspection. (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. As per 40 CFR 63.11223(b)(7), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. [40 CFR 63.11214(b)]	Monitored by periodic emission monitoring once initially and once every 5 years. Measure the concentrations in the effluent stream of carbon monoxide (CO) in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR 63.11223(b)(5)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially and once every 5 years. The permittee shall keep the following records for a period of 5 years following the date of each recorded action as per 40 CFR 63.11225(d) to document conformance with once every 5 years tune-up: Records identifying each boiler, the date of tune-up, the procedures followed for tune-ups and the manufacturer's specifications to which the boiler was tuned. Per 40 CFR 63.11223(b)(6), the permittee must maintain a report containing the following information on site: (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (ii) A description of any corrective actions taken as a part of the tune-up of the boiler. (iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. Additional recordkeeping is required for each seasonal boiler and each limited-use boiler, per 40 CFR 63.11225(c)(2)(v) and (vi), respectively. [40 CFR 63.11225(c)(2)]	Submit notification: Once initially. Submit a Notification of Compliance status by July 19, 2014 electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The Notification of Compliance Status must include the certification(s) of compliance for the following statement: "This facility complies with the requirements in 40 CFR 63.11214 to conduct an initial tune-up of boiler" and must be signed by a responsible official. If the reporting form specific to MACT JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the EPA Administrator Region 2 at the appropriate address listed in 40 CFR 63.13. [40 CFR 63.11225(a)(4)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Equipment Hot Water Boiler #1(E601) & Hot Water Boiler #2 (E602): The permittee shall conduct an initial tune-up no later than March 21, 2014 and subsequent biennial tune-ups no more than 25 months after the previous tune-up. The tune-ups shall be conducted, as required in Table 2 to 40 CFR Part 63, Subpart JJJJJJ, and in accordance with 40 CFR 63.11223(b) as follows: (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be delayed until the next scheduled unit shutdown, but each burner must be inspected at least once every 36 months). (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available. As per 40 CFR 63.11223(b)(7), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11214(b)]	Monitored by periodic emission monitoring once initially and biennially. Measure the concentrations in the effluent stream of carbon monoxide (CO) in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). [40 CFR 63.11223(b)(5)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially and biennially. The permittee shall keep the following records for a period of 5 years following the date of each recorded action as per 40 CFR 63.11225(d) to document conformance with the biennial tune-up: (i) Records identifying each boiler, the date of tune-up, the procedures followed for tune-ups and the manufacturer's specifications to which the boiler was tuned. (ii) Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to a description of the fuel and the total fuel usage amount with units of measure. Per 40 CFR 63.11223(b)(6), the permittee must maintain the following information on site: (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler. (ii) A description of any corrective actions taken as a part of the tune-up of the boiler. (iii) The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. [40 CFR 63.11225(c)(2)]	Submit notification: Once initially. Submit a Notification of Compliance status by July 19, 2014 to the Administrator, EPA Region II, certified by the Responsible Official containing the following certifications: "This facility complies with the requirements in 40 CFR 63.11214 to conduct an initial tune-up of boiler." The Notification of Compliance status shall contain the information required by 40 CFR 63.11223(b)(6). The permittee may use the forms provided on the EPA web page http://www.epa.gov/ttn/atw/boiler/imptools/area_tuneup_noc.docx. [40 CFR 63.11225(a)(4)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	Equipment Hot Water Boiler #1(E601) & Hot Water Boiler #2 (E602): The permittee must have a one-time energy assessment performed by a qualified energy assessor, no later than March 21, 2014. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 to 40 CFR 63 MACT JJJJJJ satisfies the energy assessment requirement. The energy assessment must include the following, per Table 2 to 40 CFR 63 MACT JJJJJJ: (1) A visual inspection of the boiler system, (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints, (3) Inventory of major systems consuming energy from affected boiler(s), (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage, (5) A list of major energy conservation measures, (6) A list of the energy savings potential of the energy conservation measures identified, (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee must keep a copy of the energy assessment report on site for a period of 5 years. [40 CFR 63.11225(d)]	Submit a report: Once initially. Submit a Notification of Compliance status by July 19, 2014 to the Administrator, EPA Region II, certified by the Responsible Official containing the following certifications: "This facility has had an energy assessment performed according to 40 CFR 63.11214(c)." The permittee may use the forms provided on the EPA web page http://www.epa.gov/ttn/atw/boiler/imptools/area_tuneup_noc.docx. [40 CFR 63.11225(a)(4)]

U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
	Boilers Area Sources] [40 CFR 63.11214(c)]			
21	The permitte must submit the Initial Notification of Applicability no later than January 20, 2014. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11225(a)(2)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain a copy of the Initial Notification for a period of 5 years. [40 CFR 63.11225(d)]	Submit notification: Once initially by January 20, 2014 to the Administrator, EPA Region II, certified by the Responsible Official. The permittee may use instructions and the forms provided on the EPA website http://www.epa.gov/ttn/atw/boiler/area_initial_notification.doc. [40 CFR 63.11225]
22	Prepare a biennial compliance certification report by March 1 of every other year and submit to the delegated authority upon request, a compliance certification report for the previous calendar years containing the following information: (1) Company name and address (2) Statement by responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ. (3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken. The first compliance report shall be prepared by March 1, 2015. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11225(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall keep the records prescribed at 40 CFR 63.11225(b)(1) through (b)(3) on site. [40 CFR 63.11225(b)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	The permittee must provide a 30 days notice, if the permittee intends to switch fuels that may result in the applicability of a different subcategory or a switch out of 40 CFR Part 63, Subpart JJJJJJ due to a switch to 100 percent natural gas. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11225(g)]	None.	None.	Submit notification: Upon occurrence of event. Submit a written notification to the Administrator, EPA Region II. The notification must identify: (1) The name and owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuel, and the date of the notice. (2) The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJJ. (3) The date on which the permittee became subject to the currently applicable standards. (4) The date upon which the permittee will commence the fuel switch. [40 CFR 63.11225(g)]

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Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS1 Hot Water Heater E601, 20.9 MM Btu/hr firing #2 fuel oil - Pump building 1., OS4 Hot Water Heater E602, 20.9 MM Btu/hr firing #2 fuel oil - Pump building 2.**

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, for all boilers. N.J.A.C. 7:27-3.2(a) and. [N.J.A.C. 7:27- 3.2(c)]	Opacity: Monitored by visual determination each week during operation. The permittee shall conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. 2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by strip chart continuously or manual logging in a Permanently Bound logbook each week during operation. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results, if conducted, and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	Submit a report: Upon occurrence of event. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]
2	Particulate Emissions <= 8.09 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to #2 Fuel Oil under this scenario, from the preconstruction permit. [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
4	Maximum Gross Heat Input <= 20.9 MMBTU/hr (HHV) from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.05 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 3.05 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 0.76 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 4.33 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.31 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.17 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS2 Hot Water Heater E601, 20.9 MM Btu/hr firing Digester Gas - Pump building 1., OS5 Hot Water Heater E602, 20.9 MM Btu/hr firing Digester Gas - Pump building 2.**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as applicable, with the opacity limit requirements of N.J.A.C. 7:27-3.2(a) and [N.J.A.C. 7:27- 3.2(c)]	Monitored by visual determination each week during operation. The permittee shall conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. 2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. . [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart continuously or manual logging in a Permanently Bound logbook each week during operation. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results, if conducted, and (8) Name of person(s) conducting inspection. . [N.J.A.C. 7:27-22.16(o)]	Submit a report: Upon occurrence of event. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]
2	Particulate Emissions <= 8.09 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to digester gas under this scenario, from the preconstruction permit. [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
4	Maximum Gross Heat Input <= 20.9 MMBTU/hr (HHV) from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.19 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 3.48 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 2.96 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 1.61 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.27 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.27 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements

Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS3 Hot Water Heater E601, 20.9 MM Btu/hr firing Natural Gas - Pump building 1., OS6 Hot Water Heater E602, 20.9 MM Btu/hr firing Natural Gas - Pump building 2.**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as applicable, with the opacity limit requirements of N.J.A.C. 7:27-3.2(a) and [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Particulate Emissions <= 8.09 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to Natural gas under this scenario, from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Maximum Gross Heat Input <= 20.9 MMBTU/hr (HHV) from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.11 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 2.05 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 1.74 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 0.01 lb/hr. Maximum emission limit from SM BOP 060002 application. [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
9	TSP <= 0.16 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.16 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS13 B-1 Warehouse Boiler, 3.99 MM Btu/hr firing #2 Fuel Oil (6500 hrs/yr)-**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as applicable, with the opacity limit requirements of N.J.A.C. 7:27-3.2(a) and [N.J.A.C. 7:27- 3.2(c)]	Monitored by visual determination each month during operation. The permittee shall conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. 2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart continuously or manual logging in a Permanently Bound logbook each week during operation. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results, if conducted, and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	None.
2	Particulate Emissions <= 2.39 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to #2 Fuel Oil under this scenario, from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	Maximum Gross Heat Input <= 3.99 MMBTU/hr (HHV) based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.01 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 0.58 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 0.15 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 0.83 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.06 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.03 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS14 B-1 Warehouse Boiler, 3.99 MM Btu/hr firing Digester Gas (6500 hrs/yr).**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as applicable, with the opacity limit requirements of N.J.A.C. 7:27-3.2(a) and [N.J.A.C. 7:27- 3.2(c)]	Monitored by visual determination each month during operation. The permittee shall conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. 2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart continuously or manual logging in a Permanently Bound logbook each month during operation. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results, if conducted, and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	Submit a report: Upon occurrence of event. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]
2	Particulate Emissions <= 2.39 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to digester gas under this scenario, from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	Maximum Gross Heat Input <= 3.99 MMBTU/hr (HHV) based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.04 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 0.67 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 0.57 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 0.31 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.05 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.05 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U6 Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ**

Operating Scenario: **OS15 B-1 Warehouse Boiler, 3.99 MM Btu/hr firing Natural Gas (6500 hrs/yr).**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as applicable, with the opacity limit requirements of N.J.A.C. 7:27-3.2(a) and [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Particulate Emissions <= 2.39 lb/hr based on fuel firing rate. [N.J.A.C. 7:27- 4.2]	None.	None.	None.
3	Boiler fuel limited to Natural gas under this scenario, from the SM BOP 060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Maximum Gross Heat Input <= 3.99 MMBTU/hr (HHV) based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	Maximum Gross Heat Input: Monitored by urner Rated Capacity .[N.J.A.C. 7:27-22.16(o)].	None.	None.
5	VOC (Total) <= 0.02 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 0.39 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	CO <= 0.33 lb/hr. Maximum emission limit based on Significant Modification BOP060002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 0.002 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.03 lb/hr. Maximum emission limit from SM BOP 060002 application. [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
10	PM-10 (Total) <= 0.03 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	PM-10 (Total) <= 0.03 lb/hr. Maximum emission limit from SM BOP 060002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U8 Three (3) Emergency Simple Cycle Turbines (E801, E802 & E803), each 38.9 MM Btu/hr, Kerosene fired**

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 <= 23.34 lb/hr. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [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.
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(a)]	None.	None.	None.
5	VOC (Total) <= 0.02 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	NOx (Total) <= 5.14 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [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
7	CO <= 0.19 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	SO2 <= 1.18 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.07 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	PM-10 (Total) <= 0.07 tons/yr. Maximum annual emission limit based on 100 hours of Operation per year, for routine maintenance and testing, for all three emergency generators. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Hours of Operation <= 100 hr/yr based on maximum hours for routine maintenance and testing. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously during operation. [N.J.A.C. 7:27-22.16(e)]	Hours of Operation: 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.
12	Emergency Turbine fuel is limited to Kerosene. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	These three (3) emergency generators shall be operated only: 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; 2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency; or 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]	None.	None.	None.
14	The owner or operator of an emergency generator shall maintain on site and record the information listed in N.J.A.C. 7:27-19.11. [N.J.A.C. 7:27-19.11]	Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency for the following information: (a) Once per month, the total operating time from the generator's hour meter; (b) 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; and v. 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. [N.J.A.C. 7:27-19.11]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	This emergency generator shall not be used: 1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at http://airnow.gov/, as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available at the Department's air quality permitting web site at http://www.state.nj.us/dep/aqpp/aqforecast; and 2. As a source of energy or power after the primary energy or power source has become operable again. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U8 Three (3) Emergency Simple Cycle Turbines (E801, E802 & E803), each 38.9 MM Btu/hr, Kerosene fired**

Operating Scenario: **OS1 Emergency Use Only - Gen 2 (E801) , OS2 Emergency Use Only - Gen 3 (E802), OS3 Emergency Use Only - Gen 4 (E803)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	This emergency simple cycle turbine is for emergency use only. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	VOC (Total) <= 0.16 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	CO <= 0.13 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	NOx (Total) <= 34.23 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 7.86 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.47 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 0.47 lb/hr. Maximum hourly emission rate for each generator. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U13 Anaerobic Sludge Digesters (E1301-E1305) with two (2) Enclosed Flares (CD1308 and CD1309)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions: Maximum allowable particulate emission rate from source emission point based on 99% efficiency of collection or based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7:27-6.2(a). [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Opacity <= 20 % exclusive of visible condensed water vapor, except a three minute period 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.
3	SO2 <= 2,000 ppmvd. The concentration of SO2 in the gases being discharged shall not exceed by volume at standard conditions. [N.J.A.C. 7:27-7.2(b)1]	None.	None.	None.
4	Any person responsible for the discharge of sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney shall, upon request of the Department, provide in connection with such stack or chimney such sampling facilities and testing facilities, exclusive of instruments and sensing devices, as may be necessary for the Department to determine the quantity and concentration of such sulfur compounds which are or may be discharged through such stack or chimney. Such facilities may be either permanent or temporary at the discretion of the person responsible for their provision, and shall conform to all applicable laws and regulations concerning safe construction or safe practice. [N.J.A.C. 7:27- 7.2(n)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Any flare in use at a major VOC facility after May 31, 1995, shall be designed to reduce the concentration of VOC from the source operation by no less than 95 percent. and be operated and maintained in accordance with the specifications provided by the manufacturer of the flare. [N.J.A.C. 7:27-16.13]	Other: Flare must be operated, maintained and will continue to be operated in accordance with the manufacturer's specifications.[N.J.A.C. 7:27-16.13].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event or at the conclusion of each inspection: 1. The name of the person conducting the inspection; 2. The date on which the inspection was conducted; 3. An entry indicating which flare was inspected; 4. Any changes or adjustments made to the flare as a result of the inspection; and 5. A statement stating that the flare is currently being operated in compliance with the manufacturer's specifications. . [N.J.A.C. 7:27-16.13]	None.
6	The maximum gas production from all five (5) digesters combined, shall not exceed 176,000 scf/hr or 4,219,000 scf/day based upon maximum burning capacity of U13 and GR1 (U6 and U43). [N.J.A.C. 7:27-22.16(a)]	Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage each hour during operation , based on 60-minute period, computed with hourly sums daily. Flow rate of digester gas in scf/day. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Any person responsible for a source operation which discharges sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney and who in the process of starting up or shutting down such operation anticipates discharges in excess of those allowable under this Subchapter shall file an affidavit with the Commissioner stating the following: 1. The name, address and telephone number of the person submitting affidavit; if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the officer in charge of the premises where the source operation is located; 2. The type of business or activity involved; 3. The general nature of the source operation and the proposed operating practice; 4. Duration of the period for which emissions or concentrations in excess of the allowable emission or concentrations can be expected and magnitude of such emissions or concentrations; 5. Frequency of start-up and shut-down; 6. Reasons why excessive emissions or concentrations cannot be avoided during the start-up and shut-down period. [N.J.A.C. 7:27- 7.2(p)]	None.	None.	Submit a report: As per the approved schedule. [N.J.A.C. 7:27- 7]
8	Other Gaseous Fuel Usage <= 474 MMft^3/yr. Annual digester gas limit that can be burned through the flares. [N.J.A.C. 7:27-22.16(a)]	Other Gaseous Fuel Usage: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Other Gaseous Fuel Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage daily sum to date, total for the month. Flow rate shall be reported in SCF/month. [N.J.A.C. 7:27-22.16(o)]	None.

U13 Anaerobic Sludge Digesters (E1301-E1305) with two (2) Enclosed Flares

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	Maximum Gross Heat Input <= 18.4 MMBTU/hr (HHV) per each flare. [N.J.A.C. 7:27-22.16(e)]	Maximum Gross Heat Input: Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Maximum Gross Heat Input: Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall retain on site for the life of the equipment the maximum gross rated heat input. Acceptable records are nameplate specifications, manufacturer's specifications or engineering calculations. [N.J.A.C. 7:27-22.16(o)]	None.
10	VOC (Total) <= 12.895 tons/yr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations annually. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(e)]	None.
11	NOx (Total) <= 9.67 tons/yr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations annually. [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 annually. [N.J.A.C. 7:27-22.16(o)]	None.
12	CO <= 48.355 tons/yr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
13	Methane <= 51.035 tons/yr. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(o)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
14	SO2 <= 7.295 tons/yr. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
15	The gas from Digester #1 through #5 can be routed to any one of the two new flares (CD1308 and CD 1309) [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	Each flare must be equipped with the following design features: a) Enclosed flame b) Electric ignition system c) Flame retainer d) Flame arrestor [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
17	The permittee shall install, operate and maintain an automatic system (or equivalent) on each flare to monitor the flare operation and maintain flare combustion. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by electrical ignition system continuously. In case of ignition system failure, all gases shall be shut off to the flare immediately.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record ignition system failure or if the flame goes off, then record date, time and corrective action(s). [N.J.A.C. 7:27-22.16(o)]	Install equipment: Within 180 days from the date of the approved permit modification. [N.J.A.C. 7:27-22.16(o)]
18	Each flare shall be designed to operate at a Minimum VOC Destruction and Removal Efficiency >= 99 %. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	VOC (Total) <= 1.472 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	NOx (Total) <= 1.104 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	CO <= 5.52 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	SO2 <= 0.905 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Methane <= 5.286 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	The owner or operator shall comply with the applicable standards for the emissions of VOC as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)]. [N.J.A.C. 7:27-16.16]	Other: The owner or operator shall comply, as applicable, with the monitoring requirements for other source operations as required in N.J.A.C. 7:27-16.16.[N.J.A.C. 7:27-16.16].	Other: The owner or operator shall comply, as applicable with the recordkeeping requirements for other source operations as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)].[N.J.A.C. 7:27-16.16].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	The existing flares will be removed (CD1306 and CD1307) and their respective emission points (PT1306 and PT1307) when the new flares (CD1308 and CD1309) and their respective Emission Points (PT1308 and PT1309) are installed. Meanwhile all emissions from the Anaerobic Digesters will flow through the existing flares CD1306 and CD1307 until the new flares are installed. Facility must notify appropriate Regional Enforcement Office for removal of CD1306 and CD1307 and respective emission points (PT1306 and PT1307). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U14 10,000 Gal Gasoline Underground Storage Tank**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to applicable requirements of N.J.A.C. 7:27-16.2, when the vapor pressure of the liquid is 0.02 psia or greater at standard conditions. [N.J.A.C. 7:27-16.2]	Other: Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to monitoring requirements of N.J.A.C. 7:27-16.2.[N.J.A.C. 7:27-16.2].	Other: Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to recordkeeping requirements of N.J.A.C. 7:27-16.2.[N.J.A.C. 7:27-16.2].	Other (provide description): At no specified schedule. Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to submittal /action requirements of. [N.J.A.C. 7:27-16.2]
2	Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to applicable requirements of N.J.A.C. 7:27-16.3, when the vapor pressure of the liquid is 0.02 psia or greater at standard conditions. [N.J.A.C. 7:27-16.3]	Other: Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to monitoring requirements of N.J.A.C. 7:27-16.3.[N.J.A.C. 7:27-16.3].	Other: Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to recordkeeping requirements of N.J.A.C. 7:27-16.3.[N.J.A.C. 7:27-16.3].	Other (provide description): At no specified schedule. Storage of petroleum hydrocarbon liquids in fixed roof tanks are subject to submittal /action requirements of. [N.J.A.C. 7:27-16.3]
3	Fixed Roof tank' capacity is 10,000 gallons from Preconstruction Permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	HAPs emissions not listed in this emission unit shall be below reporting threshold indicated at N.J.A.C 7:27-22 Appendix A and B. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	The permittee shall maintain records of tank contents and throughput. [N.J.A.C. 7:27-22.16(a)]	Other: Material delivered to the storage tank. Each Delivery.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record the throughput of all material stored or blended in the tank during each Delivery.[N.J.A.C. 7:27-22.16(o)].	None.
6	Tank contents limited to gasoline having vapor pressure less than or equal to 8.3 psia at standard conditions. [N.J.A.C. 7:27-22.16(a)]	Other: Tank contents and vapor pressure for each delivery.[N.J.A.C. 7:27-22.16(o)].	Other: Keep records of Invoices/Bills of lading showing Materials loaded or keep MSDS sheets for each material per Each Delivery in a DAS or permanently bound log book.[N.J.A.C. 7:27-22.16(o)].	None.
7	Total Material Transferred <= 40,000 gal/yr. Annual limit from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by review of fuel delivery records per delivery. The permittee shall monitor monthly gasoline throughput and total yearly throughput by inspecting the fuel delivery records. [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter per delivery. The permittee shall record in either a permanent bound log book, or in readily accessible computer memories, monthly and annual gasoline throughput rates. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	VOC (Total) <= 0.06 tons/yr. Maximum self-imposed emission limit from the operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U18 Three (3) boilers (E1801, E1802, E1803), each < 5 MMBtu/hr, Natural Gas, at Sludge Dewatering Facility Boiler Room**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions except for a period of not longer than three minutes in any consecutive 30-minute period exclusive of visible condensed water vapor. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27- 3.2(c)]	None.	None.	None.
2	Comply, as applicable, with the particulate emission requirements of N.J.A.C. 7:27-4 [N.J.A.C. 7:27- 4]	None.	None.	None.
3	VOC (Total) <= 0.28 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	NOx (Total) <= 5 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	CO <= 4.2 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	SO2 <= 0.03 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	TSP <= 0.38 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	PM-10 (Total) <= 0.38 tons/yr. Annual emission rate from the general preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	Annual Natural Gas usage is limited to 100.00 MM CF per year, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis) for all three boilers. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. Cumulative fuel flow meter(s). Cubic feet per consecutive 12-month period shall be calculated by the sum of the cubic feet consumed during any one month added to the sum of the cubic feet consumed during the preceding 11 months. The permittee will select the time period for accounting, such as fiscal month, calendar month, or production month. Once selected, the period must not be changed without prior approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U36 Four (4) 8,000 gallon Sodium Bisulfite Storage Tanks (E3601, E3602, E3603, E3604) controlled by Packed Tower Scrubbers**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate from source emission point based on 99% efficiency of collection or based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7:27-6.2(a). [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	Opacity <= 20 %. The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period of three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and. [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
3	Comply, as required, with all applicable requirements under N.J.A.C. 7:27-7 [N.J.A.C. 7:27- 7]	Other: Comply with all applicable monitoring requirements of[N.J.A.C. 7:27-7].	Other: Comply with all applicable recordkeeping requirements of[N.J.A.C. 7:27- 7].	None.
4	SO2 Removal Efficiency >= 99.99 % of each Packed Tower Scrubber (CD3601, CD3602 and CD3603). [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	SO2: SO2 emissions shall be less than the reporting threshold. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	Tank storage shall be limited to <= 38% concentration of Sodium Bi-Sulfite solution, from the operating permit application. [N.J.A.C. 7:27-22.16(a)]	Other: Monitor by invoice/bills of loading each delivery.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter each month during operation. The permittee shall keep invoices/bills of loading per each delivery. [N.J.A.C. 7:27-22.16(o)]	None.
7	Throughput in gallons of Sodium Bi-Sulfite solution stored in the tanks is 180,000 gal per year per tank, from the operating permit application. [N.J.A.C. 7:27-22.16(a)]	Other: Monitor by invoices/billes of lading per each delivery in each tank.[N.J.A.C. 7:27-22.16(a)].	Recordkeeping by invoices / bills of lading / certificate of analysis per delivery per each tank. Keep records of % concentration and throughput at one place. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Flowrate: The wastewater Treatment Plant effluent will be used as the scrubbing medium with an average flow rate of 12 gallons per minute at 10 PSI pressure during loading operations. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by alarm system. If the flow rate or pressure are not met then scrubber system and Central Monitoring Station alarms must shut down loading operation. The permittee shall inspect and repair the Scrubber Equipment in accordance with the manufacturers' recommendations.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall record the details of alarms sent to CMS, date of an event, repair and undertaken maintenance work. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U38 Two (2) Dewatered Sludge Holding Tanks (E3801, E3802) >100,000 gal capacity each, controlled by Enclosed Flare (CD3802)**

Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Comply, as required, with all applicable requirements under N.J.A.C. 7:27-7 [N.J.A.C. 7:27- 7]	Other: Comply with all applicable monitoring requirements of[N.J.A.C. 7:27-7].	Other: Comply with all applicable recordkeeping requirements of[N.J.A.C. 7:27- 7].	None.
2	The owner or operator shall comply with the applicable standards for the emissions of VOC as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)]. [N.J.A.C. 7:27-16.16]	Other: The owner or operator shall comply, as applicable, with the monitoring requirements for other source operations as required in N.J.A.C. 7:27-16.16.[N.J.A.C. 7:27-16.16].	Other: The owner or operator shall comply, as applicable with the recordkeeping requirements for other source operations as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)].[N.J.A.C. 7:27-16.16].	None.
3	The tank content is limited to wastewater treatment residual. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	The permittee shall maintain for each sludge tank records of throughputs as listed below: Waste Water Treatment Residual: Tank# Capaclty in gallons Throughput gallons/day #1 (E3801) 825,000 1,008,000 #2 (E3802) 825,000 1,008,000 [N.J.A.C. 7:27-22.16(a)]	Other: Monitor by flow monitor continuously.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record the throughput of waste water treatment residual stored in the tank, per each Delivery.[N.J.A.C. 7:27-22.16(o)].	None.
5	HAPs emissions not listed in this emission unit shall be below reporting threshold indicated at N.J.A.C 7:27-22 Appendix A and B. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	VOC (Total) <= 0.18 tons/yr. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
7	NOx (Total) <= 1.31 tons/yr. Maximum Annual emission limit from SM BOP 060002 Application. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	CO <= 0.27 tons/yr. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
9	SO2 <= 0.99 tons/yr. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
10	TSP <= 1.08 tons/yr. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
11	PM-10 (Total) <= 1.08 tons/yr. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
12	Methane <= 0.6 tons/yr. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations annually. [N.J.A.C. 7:27-22.16(e)]	Methane: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
13	Any flare in use at a major VOC facility after May 31, 1995, shall be designed to reduce the concentration of VOC from the source operation by no less than 95 percent. and be operated and maintained in accordance with the specifications provided by the manufacturer of the flare. [N.J.A.C. 7:27-16.13]	Other: Flare must be operated, maintained and will continue to be operated in accordance with the manufacturer's specifications.[N.J.A.C. 7:27-16.13].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event or at the conclusion of each inspection: 1. The name of the person conducting the inspection; 2. The date on which the inspection was conducted; 3. An entry indicating which flare was inspected; 4. Any changes or adjustments made to the flare as a result of the inspection; and 5. A statement stating that the flare is currently being operated in compliance with the manufacturer's specifications. . [N.J.A.C. 7:27-16.13]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	The gas from sludge tanks #1 (E3801) and #2 (E3802) must be routed to CD3802. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Each flare must be equipped with the following design features: a) Enclosed flame b) Electric ignition system c) Flame retainer d) Flame arrestor [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	The permittee shall install, operate and maintain an automatic system (or equivalent) on a flare to monitor the flare operation and maintain flare combustion. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by electrical ignition system continuously. In case of ignition system failure, all gases shall be shut off to the flare immediately.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter upon occurrence of event. Record ignition system failure or if the flame goes off, then record date, time and corrective action(s), in a permanently bound log book or in a readily accessible computer files. [N.J.A.C. 7:27-22.16(o)]	Install equipment: Within 180 days from the date of the approved permit modification. [N.J.A.C. 7:27-22.16(o)]
17	Each flare shall be designed to operate at a Minimum VOC Destruction and Removal Efficiency >= 99.9 %. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	VOC (Total) <= 0.19 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	NOx (Total) <= 1.2 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	CO <= 0.3 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Methane <= 0.675 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	SO2 <= 1.16 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	TSP <= 0.122 lb/hr per flare. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	PM-10 (Total) <= 0.122 lb/hr per flare. [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
25	The owner or operator shall comply with the applicable standards for the emissions of VOC as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)]. [N.J.A.C. 7:27-16.16]	Other: The owner or operator shall comply, as applicable, with the monitoring requirements for other source operations as required in N.J.A.C. 7:27-16.16.[N.J.A.C. 7:27-16.16].	Other: The owner or operator shall comply, as applicable with the recordkeeping requirements for other source operations as required in N.J.A.C. 7:27-16.16 and [N.J.A.C. 7:27-16.22(a)].[N.J.A.C. 7:27-16.16].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U40 Digested Sludge Thickening/ Dewatering (E4001 - E4013) controlled by Carbon Adsorber System (CD4001)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable emission rate of particulates based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7: 27-6.2(a) [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	Total Suspended Particulate (TSP) emissions in lb/hr are Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	No person shall cause, suffer, allow, or permit particulates to be emitted from any stack or chimney into the outdoor air, the shade or appearance of which is greater than 20 percent opacity, exclusive of condensed water vapor, except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	Monitored by visual determination each month during operation (monthly). The permitee shall conduct visual opacity inspections during daylight hours. Visual inspections shall consist of a visual survey to identify if the stack has visible emissions, (other than condensed water vapor). [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	VOC (Total) < 3.5 lb/hr. Maximum allowable emission rate, as determined by the procedure of N.J.A.C. 7:27-16.16(d), from tables 16A and 16B, based on VOC vapor pressure and percent VOC in source gas. [N.J.A.C. 7:27-16.16(c)]	Other: Monitor process parameters or conduct source operation analysis to comply with N.J.A.C. 7:27-16.16(g)1[N.J.A.C. 7:27-16.16(g)].	Other: Maintain records for each source operation as follows: 1. Record the following information: a. the chemical name and vapor pressure of each VOC used. b. the percent concentration by volume of VOC in the source gas, c. the volumetric gas flow rate, d. the source gas range classification, and e. the maximum allowable emission rate; f. also record the maximum actual emission rate, g. maintain the calculations and any test data used to determine the actual emission rate for each process; and, h. if the source operation is used for more than one process, record the dates on which the source operation is used for each process; or 2. Conduct an analysis of the source operation, which demonstrates that, under operating conditions that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with this section; and maintain process records sufficient to demonstrate whether the VOC emission rate of the source operation from actual operations does not exceed the VOC emission rate under operating conditions.[N.J.A.C. 7:27-16.16(g)].	None.
5	Maintain records required by N.J.A.C. 7:27-16.16 for a period of no less than five years [N.J.A.C. 7:27-16.22(a)]	None.	Other: Maintainrequired record in a log book or computer data storage system[N.J.A.C. 7:27-22.16(o)].	None.
6	VOC emissions in lb/hr are Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	The equipment must be completely enclosed and no fugitive emissions allowed. A negative pressure shall be maintained in the building at all times [N.J.A.C. 7:27-22.16(a)]	Monitored by parametric monitoring system continuously. Monitor by pressure meter. In the case of power failure or any other failure that causes shut off of the Exhaust fan, then shut off entire operation immediately. 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 of current/voltage output for the meter. Maintain copies of design calculations onsite indicating enclosures will be maintained under negative pressure. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart or data acquisition (DAS) system continuously. Record negative pressure in the building. [N.J.A.C. 7:27-22.16(o)]	None.
8	Maximum throughtput is 1.152 million gallons per day of digested sludge. [N.J.A.C. 7:27-22.16(a)]	Monitored by sludge feed/charge rate monitoring continuously using totalizing meter. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system daily. Record daily throughput in millions of gallons per day and sum to date. [N.J.A.C. 7:27-22.16(o)]	None.
9	Hydrogen sulfide: emissions in lb/hr shall be Deminimus (Below Reporting Threshold). [N.J.A.C. 7:27-22.16(a)]	Hydrogen sulfide: Monitored by periodic emission monitoring each month during operation. Monitor H2S concentration by a Jerome Meter monthly after the control device. Compare results to outlet design criteria of 25 ppb. [N.J.A.C. 7:27-22.16(o)]	Hydrogen sulfide: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record H2S outlet concentration in ppb. [N.J.A.C. 7:27-22.16(o)]	None.
10	The hourly emission rate of all other contaminants shall be below the reporting threshold of 0.05 lb/hr or for HAPs the annual emission rates presented in Table B of N.J.A.C. 7:27-22, Appendix. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	All emissions from the operating scenarios in this emission unit (U40) must be vented through the carbon adsorber system (CD4001). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	The owner or operator shall inspect and maintain the carbon adsorber system (CD4001) as per manufacturer recommendation necessary to achieve the required control efficiency. [N.J.A.C. 7:27-22.16(a)]	Other: Inspect and maintain CD4001 in accordance with the manufacturer's specification.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record each inspection and maintenance event during operation. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U41 Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable emission rate of particulates based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7: 27-6.2(a) [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	No person shall cause, suffer, allow, or permit particulates to be emitted from any stack or chimney into the outdoor air, the shade or appearance of which is greater than 20 percent opacity, exclusive of condensed water vapor, except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	Monitored by visual determination each month during operation (monthly). The permittee shall conduct visual opacity inspections during the daylight hours. Visual inspections shall consist of a visual survey to identify if the stack has visible emissions, (other than condensed water vapor). [N.J.A.C. 7:27-22.16(o)]	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.
3	VOC (Total) <= 3.5 tons/yr. Maximum emission rate based on 8760 hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	TSP <= 1.75 tons/yr. Maximum emission rate based on 8760 hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-10 (Total) <= 1.75 tons/yr. Maximum emission rate based on 8760 hours of operation per year. [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
6	Maximum material processing rate <= 80 lb/hr of dry polymer (equivalent to 20 gpm of polymer solution per each Gravity Belt Thickener/Belt Filter Press for the digested sludge thickening/dewatering process (U40) involving E4003, E4004, E4005, E4006 and E4007 and for the waste activated sludge thickening process (U42) involving E4203, E4204, and E4205 . [N.J.A.C. 7:27-22.16(a)]	Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once per calendar day during operation. [N.J.A.C. 7:27-22.16(o)]	None.
7	Raw materials limited to polymer solution [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U41 Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)**

Operating Scenario: **OS1 Screw Feeder No. 1 (E4101), OS4 Screw Feeder No. 2 (E4104)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	PM-10 (Total) <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U41 Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)**

Operating Scenario: **OS2 Mix Tank No. 1A (E4102), OS3 Mix Tank No. 1B (E4103), OS5 Mix Tank No. 2A (E4105), OS6 Mix Tank No. 2B (E4106)**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.8 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	TSP <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-10 (Total) <= 0.2 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	VOC (Total) < 3.5 lb/hr. Maximum allowable emission rate, as determined by the procedure of N.J.A.C. 7:27-16.16(d), from tables 16A and 16B, based on VOC vapor pressure and percent VOC in source gas. [N.J.A.C. 7:27-16.16(c)]	Other: Monitor process parameters or conduct source operation analysis to comply with N.J.A.C. 7:27-16.16(g)1 [N.J.A.C. 7:27-16.16(g)].	Other: Maintain records for each source operation as follows: 1. Record the following information: a. the chemical name and vapor pressure of each VOC used. b. the percent concentration by volume of VOC in the source gas, c. the volumetric gas flow rate, d. the source gas range classification, and e. the maximum allowable emission rate; f. also record the maximum actual emission rate, g. maintain the calculations and any test data used to determine the actual emission rate for each process; and, h. if the source operation is used for more than one process, record the dates on which the source operation is used for each process; or 2. Conduct an analysis of the source operation, which demonstrates that, under operating conditions that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with this section; and maintain process records sufficient to demonstrate whether the VOC emission rate of the source operation from actual operations does not exceed the VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(g)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Maintain records required by N.J.A.C. 7:27-16.16 for a period of no less than five years [N.J.A.C. 7:27-16.22(a)]	None.	Other: Maintain required record in a log book or computer data storage system.[N.J.A.C. 7:27-16.22(o)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U42 Waste Activated Sludge (WAS) Thickening (E4201 - E4205)**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable emission rate of particulates based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7: 27-6.2(a) [N.J.A.C. 7:27- 6]	None.	None.	None.
2	Opacity <= 20 %. No person shall cause, suffer, allow, or permit particulates to be emitted from any stack or chimney into the outdoor air the shade or appearance of which is greater than 20 percent opacity, exclusive of condensed water vapor, except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and. [N.J.A.C. 7:27- 6.2(e)]	Opacity: Monitored by visual determination each month during operation (monthly). The permitee shall conduct visual opacity inspections during daylight hours. Visual inspections shall consist of a visual survey to identify if the stack has visible emissions, (other than condensed water vapor). [N.J.A.C. 7:27-22.16(o)]	Opacity: 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.
3	TSP: emissions in lb/hr shall be Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Hydrogen sulfide: emissions in lb/hr shall be Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Other: Monitor H2S concentration by a Jerome Meter monthly after the control device. Compare results to outlet design criteria of 25 ppb.[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping by manual logging in a logbook or readily accessible computer files. Record H2S outlet concentration in ppb.[N.J.A.C. 7:27-22.16(o)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	The equipment must be completely enclosed and no fugitive emissions allowed. A negative pressure shall be maintained in the building at all times [N.J.A.C. 7:27-22.16(a)]	Monitored by parametric monitoring system continuously. Monitor by pressure meter. In the case of power failure or any other failure that causes shut off of the Exhaust fan, then shut off entire operation immediately. 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 of current/voltage output for the meter. Maintain copies of design calculations onsite indicating enclosures will be maintained under negative pressure. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by strip chart or data acquisition (DAS) system continuously. Record negative pressure in the building. [N.J.A.C. 7:27-22.16(o)]	None.
6	Maximum throughtput is 4.32 million gallons per day of sludge [N.J.A.C. 7:27-22.16(a)]	Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system daily. Record daily throughput in millions of gallons per day and sum to date. [N.J.A.C. 7:27-22.16(o)]	None.
7	All emissions from the operating scenarios in this emission unit must be vented through the carbon adsorber system (CD4001) [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	The owner or operator shall inspect and maintain the carbon adsorber system (CD4001) as per the manufacturer's recommendation necessary to achieve the required control efficiency. [N.J.A.C. 7:27-22.16(a)]	Other: Inspect the CD4001 in accordance with the manufacturer's specification monthly.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record each inspection and maintenance event. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	VOC (Total) < 3.5 lb/hr. Maximum allowable emission rate, as determined by the procedure of N.J.A.C. 7:27-16.16(d), from tables 16A and 16B, based on VOC vapor pressure and percent VOC in source gas. [N.J.A.C. 7:27-16.16(c)]	Other: Monitor process parameters or conduct source operation analysis to comply with N.J.A.C. 7:27-16.16(g)1.[N.J.A.C. 7:27-16.16(g)].	Other: Maintain records for each source operation as follows: 1. Record the following information: a. the chemical name and vapor pressure of each VOC used. b. the percent concentration by volume of VOC in the source gas, c. the volumetric gas flow rate, d. the source gas range classification, and e. the maximum allowable emission rate; f. also record the maximum actual emission rate, g. maintain the calculations and any test data used to determine the actual emission rate for each process; and, h. if the source operation is used for more than one process, record the dates on which the source operation is used for each process; or 2. Conduct an analysis of the source operation, which demonstrates that, under operating conditions that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with this section; and maintain process records sufficient to demonstrate whether the VOC emission rate of the source operation from actual operations does not exceed the VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(g)].	None.
10	Maintain records required by N.J.A.C. 7:27-16.16 for a period of no less than five years [N.J.A.C. 7:27-16.22(a)]	None.	Other: Maintain required record in a log book or computer data storage system[N.J.A.C. 7:27-16.22(o)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Subject to Federal Requirements: * 40 CFR 60, NSPS Subpart A - General Provisions * 40 CFR 60, NSPS Subpart - JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	STACK TESTING SUMMARY: The permittee shall conduct a stack test using a protocol approved by the Department to demonstrate compliance with emission limits for RICE engine #3 for the CO & NMHC Destruction and Removal efficiency (DRE), VOC, NOx, CO, TSP and Formaldehyde emission limits, as specified in the compliance plan for OS7 (NG-Natural Gas), OS8 (DG-Digester Gas) and OS9 (Natural Gas & Digester Gas mixture), and SO2 (OS8 & OS9 only). Stack testing procedures shall also apply to sources conducting stack testing pursuant to 40 CFR 60, NSPS JJJJ. Stack testing during OS9 (Natural Gas & Digester Gas mixture) shall be at or near 50% combination of Natural Gas and Digester Gas. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe conditions. THIS STACK TEST IS SUBJECT TO THE SIGNIFICANT MODIFICATION SUPPLEMENTAL FEES PURSUANT TO N.J.A.C. 7:27-22.31. [N.J.A.C. 7:27-22.16(a)]	Other: The stack test must be conducted either within 180 days from the date of the approved initial operating permit BOPxxxxxx OR, for new or modified source, within 180 days after initial startup of the new or modified source or within 60 days of approval of a timely submitted protocol, whichever comes later. Pursuant to N.J.A.C. 7:27-16.23(c) and 19.15(c), the initial stack test to demonstrate compliance with VOC/NOx RACT standards shall be conducted within 180 days from the date on which source operation commences operation. If a source is subject to NSPS, extending the testing date beyond 180 days after the source's initial startup requires prior approval from US EPA. [N.J.A.C. 7:27-22.18] and [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)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 within 60 days from the date of the approved initial (or modified) operating permit. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: https://www.epa.gov/chief. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	RENEWAL STACK TESTING SUMMARY: 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 NOx, CO and VOC for OS1 & OS6 while operating each turbine combusting natural gas, for NOx, CO, VOC and PM-10 for OS2 & OS7 while operating each turbine & its associated duct burner together combusting natural gas and NOx, CO, VOC and PM-10 for OS3 & OS8 while operating each turbine combusting distillate oil, as specified in the compliance plan. The permittee shall provide EMS with the turbine load performance curve with the protocol. The duct burner shall be in operation during stack testing. 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)]	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)].	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: https://www.epa.gov/chief. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	RENEWAL STACK TESTING SUMMARY (Continued): The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NOx and/or CO, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above. The permittee shall provide EMS with the turbine load performance curve with the protocol. The duct burner shall be in operation during stack testing. [N.J.A.C. 7:27-22.16(a)]	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)].	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. 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: https://www.epa.gov/chief. 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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Opacity <= 20 % exclusive of visible condensed water vapor, except for a period of not longer than 10 consecutive seconds, for each engine. [N.J.A.C. 7:27- 3.5]	Opacity: Monitored by visual determination each month during operation. The permittee shall conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, (other than condensed water vapor), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. 2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted each day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJ DEP pursuant to N.J.A.C. 7:27-22.19. [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results, if conducted, and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	None.
6	Particulate Emissions <= 6.74 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of each engine. (Limit applies separately at Emission Points PT4301, PT4302 and PT4303). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	CO <= 500 ppmvd @ 15% O2 for each engine. [N.J.A.C. 7:27-16.10(b)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-16.23(a)] and. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	None.
8	The owner or operator of a stationary reciprocating engine that has a maximum rated power output of 37 kW or more shall adjust the combustion process in accordance with the procedure set forth at N.J.A.C. 7:27-19.16 and in accordance with the manufacturer's recommended procedures and maintenance schedules. [N.J.A.C. 7:27-16.10(e)] and [N.J.A.C. 7:27-19.8(f)]	Monitored by periodic emission monitoring upon performing combustion adjustment. Monitoring shall be performed in accordance with the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005. [N.J.A.C. 7:27-19.16(g)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment. The permittee shall record the following information for each adjustment in a log book or computer data system: 1. The date and times the adjustment began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NOx, CO, and O2 measured before and after the adjustment was made; and 5. The type and amount of fuel use over the 12 months prior to the adjustment. The records shall be kept for a minimum of 5 years and be readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(h)]	None.
9	NOx (Total) <= 1.5 grams/brake horsepower-hour for Lean-Burn fueled by Gaseous Fuel or an emission rate which is equivalent to 80 percent NOx reduction from the uncontrolled NOx emission level, for engines E4301 and E4302. [N.J.A.C. 7:27-19.8(e)1]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	NOx (Total) <= 0.9 grams/brake horsepower-hour for Lean-Burn fueled by Gaseous Fuel or an emission rate which is equivalent to 80 percent NOx reduction from the uncontrolled NOx emission level, for engine E4303, based on Significant Modification BOP140002. [N.J.A.C. 7:27-19.8(e)2]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	None.
11	NOx (Total) <= 0.6 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by periodic emission monitoring once every 2 weeks with the average of three readings, taken within no more than 5 minutes apart. The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [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 once every 2 weeks. PMP results must be recorded in the same units as permit limits. Maintain records of NOx and CO emissions' results including calculations of grams/bhp-hr. [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	CO <= 27.1 ppmvd @ 15% O2 for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by periodic emission monitoring once every 2 weeks with the average of three readings, taken within no more than 5 minutes apart. The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system once every 2 weeks. PMP results must be recorded in the same units as permit limits. Maintain records of NOx and CO emissions' results including calculations of grams/bhp-hr. [N.J.A.C. 7:27-22.16(o)]	None.
13	CO <= 27.1 ppmvd @ 15% O2 for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule (See U43, OS Summary, Ref#1 and #2 for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency at OS7-Ref. #10, OS8-Ref. # 21 & OS9-Ref. # 21). [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	The owner or operator shall periodically monitor VOC and O2 concentration and maintain records. [N.J.A.C. 7:27-22.16(a)]	Monitored by periodic emission monitoring semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year, based on an instantaneous determination with three readings and record average readings. Monitor by non-reference test method per Technical Manual 1005 which may be found on website at http://www.state.nj.us/dep/bts/proto.html Cogen # 1 and #2, the Periodic Monitoring Procedure (PMP) frequency was changed from quarterly to semiannually after 8 consecutive quarterly test results showing compliance with the permit limits, per Permit application BOP130001. . [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year. PMP results must be recorded in the same units as permit limits. Record VOC and O2 concentration level & maintain records. [N.J.A.C. 7:27-22.16(o)]	None.
15	VOC (Total) <= 28.4 ppmvd @ 15% O2 for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(h)]
16	NOx (Total) <= 0.6 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	VOC (Total) <= 0.15 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(h)]
18	CO <= 0.357 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details. In addition engine #3 (E4303) shall comply with NSPS JJJJ stack testing requirements and frequency.). [N.J.A.C. 7:27-22.16(h)]
19	SO2 <= 0.127 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(h)]
20	TSP <= 0.15 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(h)]
21	PM-10 (Total) <= 0.15 grams/brake horsepower-hour for each engine, based on Significant Modification BOP140002. [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
22	Flowrate <= 376 SCFM. Maximum flow rate of digester gas to each engine, per on GE Technical Specification sheet, dated January 2014, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	Flowrate: Monitored by fuel flow/firing rate instrument continuously, based on 1 minute intervals. [N.J.A.C. 7:27-22.16(o)]	Flowrate: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
23	Each engine shall not operate at less than 50% of the full load heat input (13.71 / 2 = 6.87 MMBtu/hr) except for 30 minute during start-up and shutdown periods. [N.J.A.C. 7:27-22.16(a)]	Monitored by fuel flow/firing rate instrument continuously. Heat input is based on: (a) Natural Gas Only: Natural Gas Volume of 6793 CF/hr; (b) on Digester Gas Volume of 11, 267 CF/hr at 50% load; and (c) for a mixture of Natural Gas Usage and Digester Gas Usage: GHI (Total) >=[NG x 1020 + DG x 603] / 10E6 where, GHI = 13.7 / 2 = 6.87 MMBtu/hr (50 % load) NG = CF of Natural Gas/hr DG = CF of Digester Gas/hr. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. (a) Record CF/hr of pure natural gas (b) Record CF/hr of pure digester gas (c) Record CF/hr of the combination of natural gas and digester gas for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(o)]	None.
24	NOx (Total) <= 1.6 lb/MW-hr for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(h)]
25	CO <= 0.96 lb/MW-hr for each engine, based on Significant Modification BOP140002. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(h)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	Maximum Gross Heat Input <= 13.71 MMBTU/hr (HHV) for each engine, based on engine maximum capacity of 1966 BHP. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by manufacturer's specifications for Rated Capacity for each engine.[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 once initially. The permittee shall retain on site for the life of the equipment the maximum gross rated heat input. Records acceptable to this department are nameplate specifications, manufacturer's specifications or engineering calculations. [N.J.A.C. 7:27-22.16(o)]	None.
27	Maximum Horse Power <= 1966 HP for engine 1 and 2, each burning natural gas. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by manufacturer's specifications for Rated Capacity for each engine.[N.J.A.C. 7:27-22.16(a)].	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall retain on site for the life of the equipment the maximum gross rated heat input. Records acceptable to this department are nameplate specifications, manufacturer's specifications or engineering calculations. [N.J.A.C. 7:27-22.16(a)]	None.
28	Maximum Horse Power <= 1966 HP for engine 3 burning digester gas or mixed (NG and DG) gas. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by manufacturer's specifications for Rated Capacity for each engine.[N.J.A.C. 7:27-22.16(a)].	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall retain on site for the life of the equipment the maximum gross rated heat input. Records acceptable to this department are nameplate specifications, manufacturer's specifications or engineering calculations. [N.J.A.C. 7:27-22.16(a)]	None.
29	Maximum Horse Power <= 1721 HP for engine 3 burning natural gas. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored by manufacturer's specifications for Rated Capacity for each engine.[N.J.A.C. 7:27-22.16(a)].	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. The permittee shall retain on site for the life of the equipment the maximum gross rated heat input. Records acceptable to this department are nameplate specifications, manufacturer's specifications or engineering calculations. [N.J.A.C. 7:27-22.16(a)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	FOR ENGINES #1 & #2: Critical Digester gas contaminants, listed below shall not exceed the concentration limit of 500 PPBV, based on a ratio of fuel gas consumption to exhaust gas mass flow of no less than 10:1 Contaminants are: Lead, Copper, Iron, and Zinc. Transition and Heavy Metals Aggregate - 5 ppmv Siloxanes - 10 ppmv Chlorides - 10 ppmv Sulfur Compounds - 200 ppmv [N.J.A.C. 7:27-22.16(a)]	Monitored by gas sampling quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The facility shall use an instrument to measure the concentration of these contaminants by EPA or NJ methods. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Record concentration of all contaminants listed in the applicable requirement in a log book or readily accessible computer files. [N.J.A.C. 7:27-22.16(o)]	None.
31	FOR ENGINES #3: The CO Catalyst inlet concentration of the following contaminants in digester gas or mixture of digester gas/natural gas shall not exceed: Transition and Heavy Metals Aggregate - 0.5 ppmv Siloxanes - 1 ppmv Chlorides - 1 ppmv Sulfur Compounds - 200 ppmv [N.J.A.C. 7:27-22.16(a)]	Monitored by gas sampling each month during operation during operation as measured at the outlet of the digester gas pretreatment system. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. All records must be certified by the certified lab analyst. The permittee must maintain Certificate of Analysis of the Digester gas. [N.J.A.C. 7:27-22.16(o)]	Other (provide description): Other : Submit a report to the NJDEP upon request. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	TSP <= 8.54 tons/yr. Maximum annual emission for each engine, based on Significant Modification BOP140002. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms TSP/bhp-hr for engine burning Natural Gas or Digester gas hrs. = Numbers of Operating hours per montl 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
33	PM-10 (Total) <= 8.54 tons/yr. Maximum annual emission based Significant Modification BOP140002 Application. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms PM-10/bhp-hr for engine burning Natural Gas or Digester gas hrs. = Numbers of Operating hours per montl 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
34	VOC (Total) <= 8.54 tons/yr. Maximum annual emission based Significant Modification BOP140002 Application. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms VOC/bhp-hr for engine burning Natural Gas or Digester gas Hrs = Number of Operating hours per month 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton . [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
35	NOx (Total) <= 34.14 tons/yr. Maximum annual emission based Significant Modification BOP140002 Application. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms NOx/bhp-hr for engine burning Natural Gas or Digester gas Hrs = Number of Operating hours per month 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
36	CO <= 20.31 tons/yr. Maximum annual emission based Significant Modification BOP140002 Application. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms CO/bhp-hr for engine burning Natural Gas or Digester gas hrs. = Numbers of Operating hours per montl 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
37	SO2 <= 10.14 tons/yr. Maximum annual emission based Significant Modification BOP140002 Application. Maximum annual emissions are also capped for U6 and U43 in GR1, based on the Netting Analysis for Significant Modification BOP140002 (See GR1). [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). Calculate Tons per month emissions by using following formula: ETM = (E.F.Ng. x 0.002167 x NG hrs /month) + (E.F.Dg. x 0.002167 x DG hrs /month) Where: ETM = Emission in Tons/Month E.F.Ng. = emission factor 0.002 gms SO2/bhp-hr (0.000588 lb/MMBtu) for engine burning Natural gas E.F.Dg. = emission factor 0.0019 gms SO2/bhp-hr (0.000563 lb/MM btu) for engine burning Digester gas NG hrs. = Number of Operating hours burning Natural gas per month DG hrs. = Number of Operating hours burning Digester gas per month 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record Emission calculation each month during operation. Emissions per any consecutive 12 months period shall be calculated by the sum of the emissions calculated during any one month added to the sum of the emissions calculated during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
38	Methane <= 235.05 tons/yr. Annual emission limit (total for three engines), from SM BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	Methane: Monitored by calculations each month during operation. [N.J.A.C. 7:27-22.16(o)]	Methane: 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.
39	Total HAPs <= 4.61 tons/yr. Annual emission limit (total for three engines), based on Significant Modification BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
40	Acrolein <= 0.28 tons/yr (555 lb/yr). Annual emission limit (total for three engines) based on Significant Modification BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
41	Formaldehyde <= 4.33 tons/yr (8655 lb/yr). Annual emission limit (total for three engines) based on Significant Modification BOP140002 Application. [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) Calculate Tons per month emissions by using following formula: ETM = (E.F.N. x 0.002167 x hrs /month Where: ETM = Emission in Tons/Month E.F.N. = emission factor based on the actual stack test in gms/bhp-hr for engine burning Natural Gas or Digester gas hrs. = Numbers of Operating hours per mont 0.002167 is a conversion factor: 1966 bhp/453.6 gms x 2000 lbs/ton. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details.). [N.J.A.C. 7:27-22.16(h)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
42	Natural Gas Usage <= 116.48 MMft^3/yr. Annual Natural Gas consumption limit, based on higher heating value (HHV) of natural gas, for each engine, while burning in combination only with Digester gas, per Significant Modification BOP140002 Application. [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 continuously. Record fuel consumption in a logbook or readily accessible computer files. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of SM BOP140002. [N.J.A.C. 7:27-22.16(o)]	None.
43	Digester Gas: Annual Digester Gas consumption limit <= 200.1 MM CF/yr for each engine, while burning separately or in combination with natural gas, in this emission unit U43, from SM BOP140002 Application [N.J.A.C. 7:27-22.16(a)]	Monitored by fuel flow/firing rate instrument continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Record fuel consumption in a logbook or readily accessible computer files. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of SM BOP140002. [N.J.A.C. 7:27-22.16(o)]	None.
44	Temperature at Exit of Catalyst >= 730 degrees F for each Catalytic Oxidizer, based on SM BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	Temperature at Exit of Catalyst: Monitored by temperature instrument continuously, based on 1 minute intervals for each catalytic oxidizer. The permittee shall, install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specification. 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 strip chart or data acquisition (DAS) system continuously for each Catalytic Oxidizer. [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
45	The catalyst array(s) for each Catalytic Oxidizer shall be maintained and replaced in accordance with the recommendations of the manufacturer, and as necessary based on emission levels indicated through portable emissions monitoring. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall maintain the record Catalyst replacement or wash date in a log book or readily accessible computer files. [N.J.A.C. 7:27-22.16(o)]	None.
46	The control devices, CD4301, CD4302 and CD4303 shall comply with the following design details: Catalyst Material: Platinum Form of Catalyst: Honeycomb Minimum expected life of catalyst: 16,000 hours [N.J.A.C. 7:27-22.16(a)]	Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system continuously. Record hours of operation of each engine between Catalytic Oxidizer wash or replacement. [N.J.A.C. 7:27-22.16(o)]	None.
47	CD4301 and CD4302 design efficiency is as follows: CO >= 88.1%, NMHC >= 54.5%, Acrolein >= 54.5%, Formaldehyde >= 54.5%. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
48	CD4303 design efficiency is as follows, based on Clariant (former Sub-Chemie) specifications: CO >= 96.7%, NMHC >= 83.3%, Formaldehyde >= 95%. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
49	The Permittee shall install, operate and maintain a digester gas pretreatment system in accordance with the catalyst manufacturer's and gas pretreatment system's recommendations. The permittee shall replace the media to ensure meeting the minimum design life of the Catalyst. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records of the replacement of the pretreatment system media.[N.J.A.C. 7:27-22.16(o)].	Submit recordkeeping format: As per the approved schedule upon NJDEP request. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
50	The Catalytic Oxidizers shall be operational all the time, including startup and shutdown. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
51	CO Catalyst Volume >= 3.57 Ft^3, for each engine, based Significant Modification BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored based on Catalyst Manufacturer's specification.[N.J.A.C. 7:27-22.16(o)].	None.	None.
52	Applicable to Engine #3 (E4303) only: The permittee shall submit the digester gas pretreatment system evaluation protocol. The pretreatment system parameters evaluated shall include, but are not limited to, i. Siloxane and hydrogen sulfide concentrations in the digester gas inlet and outlet, ii. Other gas constituents that may impact the engine or air cleaning device performance, and iii. The breakthrough determination method and monitoring and frequency of changing the carbon media. Within three months of the permittee's submittal of a complete protocol, the Department will complete its review and issue a decision to proceed with the study. The decision may include modifications to the submitted protocol, which the Department will discuss with permittee prior to finalizing. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Comply with the requirement: Within 90 days from the date of the approved permit. The permittee shall submit the digester gas pretratment system evaluation protocol for Department's review and approval. [N.J.A.C. 7:27-22.16(o)]
53	Within the 12 months following the Department's decision on the digester gas pretreatment system protocol, the permittee will conduct the study based on the approved protocol to determine what level of digester gas pre-treatment is necessary to ensure a one year life of the SCR catalyst. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored per the approved digester gas pretreatment system protocol.[N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping per the approved digester gas pretreatment system.[N.J.A.C. 7:27-22.16(o)].	Comply with the requirement: As per the approved schedule. The permittee shall submit a report, summarizing the results of the study of the digester gas pretreatment system to the Department within the 60 days after the finishing the 12 month study. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
54	Applicable to Engine #3 (E4303) only: The permittee will revise its original State of the Art (SOTA) analysis, if the study determines it is possible to pretreat digester gas to a level that allows one year of SCR catalyst life, and calculate a revised cost per ton of NOx removed as follows: a. The permittee will proceed with the engineering design and development of procurement documents in accordance with public procurement requirements under the Department of Community Affairs for implementing a SCR system for engine #3. b. The permittee will obtain bids from Contractors within 12 months from completion of the study to construct SCR and the enhanced digester gas pretreatment system (if necessary). c. After receipt of bids, the permittee will revise its SOTA analysis with the modification that the total SCR system cost will be based upon the bid price from the lowest responsible bidder or the price proposal received from the current cogeneration system contractor, if lower. d. If an enhanced digester gas pretreatment system is necessary, the SOTA analysis may also include incremental costs of the additional components of the enhanced digester gas pretreatment system. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Comply with the requirement: As per the approved schedule. The permittee shall submit the revised State of the Art (SOTA) analysis for SCR on engine #3 within 12 months after the end of the digester gas pretreatment system study for review and approval. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
55	Applicable to Engine #3 (E4303) only: If the revised SOTA analysis, as reviewed and approved by the Department, shows a cost effectiveness of less than $50,000 per ton NOx removed, the permittee must submit an operating permit modification application to the Department that includes the installation of SCR on engine #3, within 12 months of Department approval of the SOTA analysis. If the revised SOTA analysis, as reviewed and approved by the Department, shows a cost effectiveness of greater than $50,000 per ton NOx removed, a permit revision is not necessary. After 12 months of an SCR operation, the permittee may submit a permit modification application to revise the Title V permit if a revised SOTA analysis indicates greater than $50,000 per ton of NOx removed. The revised SOTA analysis showing greater than $50,000 per ton of NOx removed shall be submitted to DEP for review and approval. The Department will make a decision within 60 days of submittal of the complete application, including revised SOTA analysis. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submit the required air permit application(s): As per the approved schedule. [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
56	Applicable to Engine #3 (E4303) only: 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-General Provisions]- [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)]
57	Applicable to Engine #3 (E4303) only: 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-General Provisions]- [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)]
58	Applicable to Engine #3 (E4303) only: 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-General Provisions]- [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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
59	Applicable to Engine #3 (E4303) only: 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-General Provisions]- [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)]
60	Applicable to Engine #3 (E4303) only: The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). The notification shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of facility before and after the change and the expected completion date of the change. Notification shall be postmarked within 60 days or as soon as practicable before any change is commenced. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
61	Applicable to Engine #3 (E4303) only: The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall contain the information required in 40 CFR 60.7(b) and be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]
62	Applicable to Engine #3 (E4303) only: The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. [40 CFR 60.7(f)]	None.	Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, all adjustments/maintenance performed on these systems or devices, and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the dates of the record, except as prescribed in 40 CFR 60.7(f)(1) through (3). Sources subject to 40 CFR 70, are required to retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application, per 40 CFR 70.6(a)(3)(ii)(B). [40 CFR 60.7(f)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
63	Applicable to Engine #3 (E4303) only: Within 60 days after achieving the maximum production rate at which the affected facility will operate, but not later than 180 days after initial startup of the facility, the owner or operator shall conduct performance test(s) and shall furnish the Administrator a written report of the results. [40 CFR 60.8(a)]	None.	None.	Submit a report: At a common schedule agreed upon by the operator and the Administrator. The owner or operator shall submit results of the performance test(s) to the Administrator. [40 CFR 60.8(a)]
64	Applicable to Engine #3 (E4303) only: 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. [40 CFR 60.8(b)]	None.	None.	None.
65	Applicable to Engine #3 (E4303) only: Performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of the performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
66	Applicable to Engine #3 (E4303) only: 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). [40 CFR 60.8(d)]	None.	None.	None.
67	Applicable to Engine #3 (E4303) only: Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [40 CFR 60.8(f)]	None.	None.	None.
68	Applicable to Engine #3 (E4303) only: 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. [40 CFR 60.11(a)]	None.	None.	None.
69	Applicable to Engine #3 (E4303) only: At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
70	Applicable to Engine #3 (E4303) only: No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]	None.	None.	None.
71	Applicable to Engine #3 (E4303) only: All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subpart to specify the emission limit. [40 CFR 60.13(h)(3)]	None.	None.	None.
72	Applicable to Engine #3 (E4303) only: The owner or operator shall notify the Administrator of the proposed replacement of components, upon reconstruction as defined at 40 CFR 60.15. [40 CFR 60.15]	None.	None.	Submit notification: At a common schedule agreed upon by the operator and the Administrator. The notification shall include information listed under 40 CFR Part 60.15(d). The notification shall be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced. [40 CFR 60.15(d)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ**

Operating Scenario: **OS1 Cogen #1 Running on Natural Gas, OS4 Cogen #2 Running on Natural Gas**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	CO <= 1.546 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on a 1 hour block average. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). Also Recordkeeping by manually logging of emissions in a log book or readily accessible computer files each week during operation based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(e)]
2	CO <= 1.546 lb/hr for each engine. [N.J.A.C. 7:27-22.6(a)]	CO: Monitored by periodic emission monitoring once every 2 weeks, based on an instantaneous determination with three readings no more than 5 minutes apart and record average readings. Monitor by EPA conditional test method (CTM) 034 which may be found on EPA's website at http://www.epa.gov/ttn/emc/ctm.html. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system once every 2 weeks. Record VOC and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
3	NOx (Total) <= 2.598 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on a 1 hour block average. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). Also Recordkeeping by manually logging of emissions in a log book or readily accessible computer files each week during operation based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(e)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	NOx (Total) <= 2.598 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.6(a)]	NOx (Total): Monitored by periodic emission monitoring once every 2 weeks, based on an instantaneous determination with three readings no more than 5 minutes apart and record average readings. Monitor by EPA conditional test method (CTM) 034 which may be found on EPA's website at http://www.epa.gov/ttn/emc/ctm.html. [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 once every 2 weeks. Record NOx and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
5	PM-10 (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test). (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	None.
7	VOC (Total) <= 0.65 lb/hr per engine, based on SM BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test). (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit. [N.J.A.C. 7:27-22.16(e)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Natural Gas Usage <= 51.1 MMft^3/yr. Annual Natural Gas consumption limit for each engine firing only Natural gas, from SM 140002 Application. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by gas use totalizing meter 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. Record fuel consumption in a logbook or readily accessible computer files. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of the Operating Permit. This accounting will not include any consumption during months prior to the approval of the Operating Permit. The Permittee will select month, calendar month, or production month. Once selected the period must not be changed without approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.
9	PM-2.5 (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ**

Operating Scenario: **OS2 Cogen #1 Running on Digester Gas, OS3 Cogen #1 Running on Natural and Digester Gas Mixture, OS5 Cogen #2 Running on Digester Gas, OS6 Cogen #2 Running on Natural and Digester Gas Mixture**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 5,184 ppmv for digester gas used in boilers (U6) and cogenertion unit (U43). [N.J.A.C. 7:27-7.2(i)] (surrogate for: Sulfur Compounds other than S02, S03 and H2S04)	None.	None.	None.
2	Sulfur Content in Fuel <= 200 ppmv measured as H2S in digester gas used in boilers (U6) and cogenertion unit (U43). [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. gas) each month during operation, based on an instantaneous determination using Jerome Meter or equivalent as approved by the Emission Measurement Section (EMS). [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: 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.
3	SO2 <= 20 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
4	SO3 and H2SO4, as converted and expressed as H2SO4 <= 5 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
5	Sulfur Compounds other than S02, S03 and H2S04 <= 2 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Any person responsible for the discharge of sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney shall, upon request of the Department, provide in connection with such stack or chimney such sampling facilities and testing facilities, exclusive of instruments and sensing devices, as may be necessary for the Department to determine the quantity and concentration of such sulfur compounds which are or may be discharged through such stack or chimney. Such facilities may be either permanent or temporary at the discretion of the person responsible for their provision, and shall conform to all applicable laws and regulations concerning safe construction or safe practice. [N.J.A.C. 7:27- 7.2(n)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Any person responsible for a source operation which discharges sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney and who in the process of starting up or shutting down such operation anticipates discharges in excess of those allowable under this Subchapter shall file an affidavit with the Commissioner stating the following: 1. The name, address and telephone number of the person submitting affidavit; if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the officer in charge of the premises where the source operation is located; 2. The type of business or activity involved; 3. The general nature of the source operation and the proposed operating practice; 4. Duration of the period for which emissions or concentrations in excess of the allowable emission or concentrations can be expected and magnitude of such emissions or concentrations; 5. Frequency of start-up and shut-down; 6. Reasons why excessive emissions or concentrations cannot be avoided during the start-up and shut-down period. [N.J.A.C. 7:27- 7.2(p)]	None.	None.	Submit a report: As per the approved schedule. [N.J.A.C. 7:27- 7]
8	TSP <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. (See Stack testing requirements at U43 OS Summary, Ref#1 and #2 for details.). [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test). (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	PM-10 (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	VOC (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]
11	CO <= 1.546 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on a 1 hour block average. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]
12	CO <= 1.546 lb/hr for each engine. [N.J.A.C. 7:27-22.6(a)]	CO: Monitored by periodic emission monitoring once every 2 weeks, based on 5 minute intervals with three readings no more than 5 minutes apart and record average readings. Monitor by EPA conditional test method (CTM) 034 which may be found on EPA's website at http://www.epa.gov/ttn/emc/ctm.html. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system once every 2 weeks. Record VOC and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
13	SO2 <= 1.08 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	NOx (Total) <= 2.598 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on a 1 hour block average. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	NOx (Total) <= 2.598 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.6(a)]	NOx (Total): Monitored by periodic emission monitoring once every 2 weeks, based on 5 minute intervals with three readings no more than 5 minutes apart and record average readings. Monitor by EPA conditional test method (CTM) 034 which may be found on EPA's website at http://www.epa.gov/ttn/emc/ctm.html. [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 once every 2 weeks. Record NOx and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
16	HAPs (Total) <= 0.418 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Methane <= 17.887 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Acrolein <= 0.021 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Acetaldehyde <= 0.052 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Methyl alcohol (Methanol) <= 0.016 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Formaldehyde <= 0.329 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	PM-2.5 (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ**

Operating Scenario: **OS7 Cogen #3 Running on Natural Gas**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	CO <= 1.35 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]
2	CO <= 1.35 lb/hr for each engine. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by periodic emission monitoring once every 2 weeks, based on an instantaneous determination with the average of three readings, taken within no more than 5 minutes apart, The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system once every 2 weeks. PMP results must be recorded in the same units as permit limits. Record CO and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
3	NOx (Total) <= 2.3 lb/hr based on 0.6 gms/bhp-hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	NOx (Total) <= 2.3 lb/hr based on 0.6 gms/bhp-hr. [N.J.A.C. 7:27-22.6(a)]	NOx (Total): Monitored by periodic emission monitoring once every 2 weeks, based on an instantaneous determination with the average of three readings, taken within no more than 5 minutes apart, The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [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 once every 2 weeks. PMP results must be recorded in the same units as permit limits. Record NOx and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
5	PM-10 (Total) <= 0.57 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.57 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
7	VOC (Total) <= 0.56 lb/hr per engine. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]
8	PM-2.5 (Total) <= 0.57 lb/hr per engine. [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
9	Natural Gas Usage <= 51.1 MMft^3/yr. Annual Natural Gas consumption limit for each engine firing only Natural gas, from SM 140002 Application. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Natural Gas Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Cubic Feet per any consecutive 12 months period shall be calculated by the sum of the Cubic Feet consumed during any one month added to the sum of the Cubic Feet consumed during the preceding 11 months. This procedure will begin with the first full month following the final issuance of the Operating Permit. This accounting will not include any consumption during months prior to the approval of the Operating Permit. The Permittee will select month, calendar month, or production month. Once selected the period must not be changed without approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.
10	Applicable to Engine #3 (E4303) only: The owner or operator of a new non-certified SI ICE Natural Gas or Lean Burn LPG with a maximum engine power of >= 1350 HP (>= 1010 kW) manufactured after July 1, 2010 must meet the emission standards for engines HP >=500 summarized in Table 1 in 40 CFR 60 Subpart JJJJ as follows: NOx <= 1.0 g/HP-hr (1.3 g/kW-hr), CO <= 2.0 g/HP-hr (2.7 g/kW-hr), VOC <= 0.7 g/HP-hr (1 g/kW-hr) or NOx <= 82 ppmvd @15% O2, CO <= 270 ppmvd @15% O2, VOC <= 60 ppmvd @15% O2. [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)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U43, OS Summary, Ref#1 and #2 for details. In addition, the owner or operator of a SI ICE engine #3 (E4303) must submit the results of stack tests to EPA Region 2 within 60 days of the stack testing.. [40 CFR 60.4245(d)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Applicable to Engine #3 (E4303) only: 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. [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.
12	Applicable to Engine #3 (E4303) only: 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. [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.
13	Applicable to Engine #3 (E4303) only: 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. [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.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	Applicable to Engine #3 (E4303) only: The owner or operator of a SI ICE natural gas engine may operate an engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owner or operator is required to conduct a performance test to demonstrate compliance with the emission standards in 40 CFR 60.4233. [40 CFR 60.4243(e)]	None.	Other: The owner or operator must keep records of the hours that propane was used. [40 CFR 60.4243(e)].	None.
15	Applicable to Engine #3 (E4303) only: The owner or operator shall maintain and operate the air-to-fuel ratio controllers appropriately to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]	None.	None.	None.
16	Applicable to Engine #3 (E4303) only: 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. [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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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Applicable to Engine #3 (E4303) only: The owner or operator of SI ICE engine with a maximum engine power >= 500 HP (>=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). [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)]
18	Applicable to Engine #3 (E4303) only: 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. [40 CFR 60.4246]	None.	None.	None.
19	Applicable to Engine #3 (E4303) only: 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ**

Operating Scenario: **OS8 Cogen #3 Running on Digester Gas, Subject to NSPS Subpart JJJJ, OS9 Cogen #3 Running on Natural and Digester Gas Mixture, Subject to NSPS Subpart JJJJ**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 5,184 ppmv for digester gas used in boilers (U6) and cogenertion unit (U43). (surrogate for: Sulfur Compounds other than SO2, SO3 & H2SO4). [N.J.A.C. 7:27-7.2(i)]	None.	None.	None.
2	SO2 <= 20 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
3	SO3 and H2SO4, as converted and expressed as H2SO4 <= 5 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
4	Sulfur Compounds other than S02, S03 and H2S04 <= 2 lb/hr. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
5	Any person responsible for the discharge of sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney shall, upon request of the Department, provide in connection with such stack or chimney such sampling facilities and testing facilities, exclusive of instruments and sensing devices, as may be necessary for the Department to determine the quantity and concentration of such sulfur compounds which are or may be discharged through such stack or chimney. Such facilities may be either permanent or temporary at the discretion of the person responsible for their provision, and shall conform to all applicable laws and regulations concerning safe construction or safe practice. [N.J.A.C. 7:27- 7.2(n)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Any person responsible for a source operation which discharges sulfur compounds in the form of gases, vapors or liquid particles through a stack or chimney and who in the process of starting up or shutting down such operation anticipates discharges in excess of those allowable under this Subchapter shall file an affidavit with the Commissioner stating the following: 1. The name, address and telephone number of the person submitting affidavit; if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the officer in charge of the premises where the source operation is located; 2. The type of business or activity involved; 3. The general nature of the source operation and the proposed operating practice; 4. Duration of the period for which emissions or concentrations in excess of the allowable emission or concentrations can be expected and magnitude of such emissions or concentrations; 5. Frequency of start-up and shut-down; 6. Reasons why excessive emissions or concentrations cannot be avoided during the start-up and shut-down period. [N.J.A.C. 7:27- 7.2(p)]	None.	None.	Submit a report: As per the approved schedule. [N.J.A.C. 7:27- 7]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	Sulfur Content in Fuel <= 200 ppmvd measured as H2S in digester gas used in boilers (U6) and cogenertion unit (U43). [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. gas) each month during operation, based on an instantaneous determination using Jerome Meter or equivalent as approved by the Emission Measurement Section (EMS). [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: 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)]	Submit a report: As per the approved schedule upon NJDEP request. [N.J.A.C. 7:27-22.16(o)]
8	VOC (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
9	CO <= 1.55 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
10	CO <= 1.55 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.6(a)]	CO: Monitored by periodic emission monitoring once every 2 weeks, based on 5 minute intervals with the average of three readings, taken within no more than 5 minutes apart, The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by manual logging of parameter or storing data in a computer data system once every 2 weeks. PMP results must be recorded in the same units as permit limits. Record CO and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	SO2 <= 1.08 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
12	NOx (Total) <= 2.6 lb/hr based on 0.6 gms/bhp-hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
13	NOx (Total) <= 2.6 lb/hr based on 0.6 gms/bhp-hr. [N.J.A.C. 7:27-22.6(a)]	NOx (Total): Monitored by periodic emission monitoring once every 2 weeks, based on 5 minute intervals with the average of three readings, taken within no more than 5 minutes apart, The permittee conducting periodic emission monitoring, for NOx, CO and O2 shall meet the requirements specified in NJDEP Technical Manual 1005 "Guidelines for Continuous Emissions Monitoring Systems (CEMS), Continuous Opacity Monitoring Systems (COMS), Periodic Monitoring Procedures (PMPs), and Annual Combustion Adjustments (ACAs)" posted on AQPP webpage, at http://www.state.nj.us/dep/aqpp/downloads/techman/1005%20June%201%202010%20Final.pdf. [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 once every 2 weeks. PMP results must be recorded in the same units as permit limits. Record CO and O2 level. [N.J.A.C. 7:27-22.16(o)]	None.
14	TSP <= 0.65 lb/hr per engine, based on SM BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing once initially and every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]

U43 Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean B

OS8, OS9

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	PM-10 (Total) <= 0.65 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	PM-2.5 (Total) <= 0.65 lb/hr per engine, based on SM BOP140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Acrolein <= 0.02 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Formaldehyde <= 0.33 lb/hr per engine, based on SM BOP 140002 Application. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially and prior to permit expiration date. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Within 60 days from the date of the approved permit. (See U43, OS Summary, Stack Test Requirements for details). [N.J.A.C. 7:27-22.16(h)]
19	Applicable to Engine #3 (E4303) only: The owner or operator of a new non-certified SI ICE Digester gas with a maximum engine power of >= 1350 HP (>= 1010 kW) manufactured after July 1, 2010 must meet the emission standards for engines HP >=500 summarized in Table 1 in 40 CFR 60 Subpart JJJJ as follows: NOx <= 2.0 g/HP-hr (1.49 g/kW-hr), CO <= 5.0 g/HP-hr (3.73 g/kW-hr), VOC <= 1.0 g/HP-hr (0.75 g/kW-hr) or NOx <= 150 ppmvd @15% O2, CO <= 610 ppmvd @15% O2, VOC <= 80 ppmvd @15% O2. [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)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U43, OS Summary, Ref#1 and #2 for details. In addition, the owner or operator of a SI ICE engine #3 (E4303) must submit the results of stack tests to EPA Region 2 within 60 days of the stack testing.. [40 CFR 60.4245(d)]

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
20	Applicable to Engine #3 (E4303) only: 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. [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.
21	Applicable to Engine #3 (E4303) only: 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. [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.
22	Applicable to Engine #3 (E4303) only: 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. [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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Applicable to Engine #3 (E4303) only: The owner or operator shall maintain and operate the air-to-fuel ratio controllers appropriately to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]	None.	None.	None.
24	Applicable to Engine #3 (E4303) only: 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. [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.
25	Applicable to Engine #3 (E4303) only: The owner or operator of SI ICE engine with a maximum engine power >= 500 HP (>=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). [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)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	Applicable to Engine #3 (E4303) only: 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. [40 CFR 60.4246]	None.	None.	None.
27	Applicable to Engine #3 (E4303) only: 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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U44 Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate from source emission point based on 99% efficiency of collection or based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7:27-6.2(a). [N.J.A.C. 7:27- 6.2(a)]	None.	None.	None.
2	The owner or operator shall not use this emission unit in a manner which will cause visible emissions greater than 20 percent opacity, exclusive of condensed water vapor, for a period of three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and. [N.J.A.C. 7:27- 6.2(e)]	Monitored by visual determination once per shift during operation, based on any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
3	TSP: Annual emission limit is below the reporting threshold, from SM 140002 application. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	PM-10 (Total): Annual emission limit is below the reporting threshold, from SM 140002 application. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-2.5 (Total): Annual emission limit is below the reporting threshold, from SM 140002 application. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum carbon loaded through this operation shall be limited to 96,000 lbs per year. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by each delivery.[N.J.A.C. 7:27-22.16(a)].	Recordkeeping by invoices / bills of lading per delivery in a log book or in readily accessible computer files. [N.J.A.C. 7:27-22.16(o)]	None.
7	Equipt# Description Capacity, CF E4404 Hopper 5.1 [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
8	Equipt# Description Capacity, CF E4408 Hopper 2 5.1 [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U44 Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit**

Operating Scenario: **OS1 Carbon Loading and Spent Carbon Unloading 1, OS2 Carbon Loading and Spent Carbon Unloading 2, OS3 Carbon Loading and Spent Carbon Unloading 3**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP: emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	PM-10 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-2.5 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	All particulate emissions shall be exhausted through CD4401, from SM 140002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	The permittee shall conduct filter sock cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter upon occurrence of event. Record each instance of bag maintenance and bag replacement in a permanently bound log book or in a readily accessible computer files. [N.J.A.C. 7:27-22.16(e)]	None.
6	Loading from hopper to the Packed towers is limited to carbon. [N.J.A.C. 7:27-22.16(e)]	Other: Material delivered to hopper. Each occurence.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record the throughput of all material stored. Each occurence.[N.J.A.C. 7:27-22.16(o)].	None.
7	Process or transfer rate is 4,000 lbs per hour. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	The type of fabric shall be Polyester for filter socks. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	Change Filter Socks if there is an exceedance of 13.8 in W.C. across the CD4401-CD4403. Filter Socks shall be changed mimimum once per year or every time carbon is changed. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records of changes of filter socks.[N.J.A.C. 7:27-22.16(o)].	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U44 Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit**

Operating Scenario: **OS4 Hopper Normal Operation, OS8 Hopper Normal Operation**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP: emissions in lb/hr shall be Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	PM-10 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	PM-2.5 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold). The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U44 Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit**

Operating Scenario: **OS5 Carbon Loading and Spent Carbon Unloading 4, OS6 Carbon Loading and Spent Carbon Unloading 5, OS7 Carbon Loading and Spent Carbon Unloading 6**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP: emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	PM-10 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-2.5 (Total): emissions in lb/hr shall be Deminimus (Below Reporting Threshold) from Significant Modification BOP140002. The hourly emission rate shall be below the reporting threshold of 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	All particulate emissions shall be exhausted through CD4404, from SM 140002 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	The permittee shall conduct filter sock cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record each instance of bag maintenance and bag replacement. [N.J.A.C. 7:27-22.16(o)]	None.
6	Loading from hopper to the Packed towers is limited to carbon. [N.J.A.C. 7:27-22.16(e)]	Other: Material delivered to hopper. Each occurence.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record the throughput of all material stored. Each occurence.[N.J.A.C. 7:27-22.16(o)].	None.
7	The type of fabric shall be Polyester for filter socks. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Change Filter Socks if there is an exceedance of 13.8 in W.C. across the CD4404 - CD4406. Filter Socks shall be changed mimimum once per year or every time carbon is changed. [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. Keep records of changes of filter socks. [N.J.A.C. 7:27-22.16(o)]	None.
9	Process or transfer rate is 4,000 lbs per hour. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U45 Construction Engine (E4501), 10.39 MMBtu/hr, Diesel fired**
Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % exclusive of visible condensed water, for a period of more than 10 consecutive seconds. [N.J.A.C. 7:27-3.5]	None.	None.	None.
2	Particulate Emissions <= 6.08 lb/hr based on 10.39 MMBTU/hr construction engine heat input rate. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
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.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	"Construction engine" means a mobile engine used for construction at a site for a limited time period. Construction engine includes a mobile electric generator that is used until regular electric power lines are available to replace the function of the electric generator at the construction site. Construction engine does not include: 1. An engine attached to a foundation; 2. An engine (including any replacement engines) at the same location for more than 12 months; 3. An engine (including any replacement engines) at a seasonal source for at least 90 days per year for at least two years; or 4. An engine that is moved from one location to another in an attempt to circumvent the residence time criteria in 2 or 3 above. [N.J.A.C. 7:27-19.1]	Other: Must comply with Applicable requirements.[N.J.A.C. 7:27-22.16(o)].	Other: Keep records of location of engine per every change in location in a log book or easily accessible computer files.[N.J.A.C. 7:27-22.16(o)].	None.
6	The engine E-4501 is a portable engine and shall be used as "construction engine" only. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Maximum Gross Heat Input <= 10.39 MMBTU/hr (HHV) based on SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	Other: Rated Capacity on the name plate.[N.J.A.C. 7:27-22.16(o)].	None.	None.
8	Total Hours of Operation <= 275 hr/yr. [N.J.A.C. 7:27-22.16(a)]	Total Hours of Operation: Monitored by hour/time monitor daily, based on a 12 calendar month average. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(e)]	Total Hours of Operation: Recordkeeping by manual logging of parameter annually. [N.J.A.C. 7:27-22.16(e)]	None.

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Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	This engine is a mounted portable engine and is being used to generate electricity for repair work purposes and will be used as a construction engine for facility repair. This engine will be stored off-site and will be used as an emergency generator at off-site locations where separate general permits will be filed. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	VOC (Total) <= 0.045 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	NOx (Total) <= 4.91 tons/yr , from SM 080001 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	CO <= 0.817 tons/yr , from SM 080001 application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	SO2: emissions are below the reporting threshold, based on 15 ppmw. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	TSP <= 0.045 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	PM-10 (Total) <= 0.045 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Engine fuel is limited to diesel. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Diesel Usage <= 20,130 gal per calendar year (73.2 gal/hr), from SM 080001 application. [N.J.A.C. 7:27-22.16(a)]	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system per delivery Each month the permittee shall calculate and record diesel fuel usage per calendar year. [N.J.A.C. 7:27-22.16(o)]	None.
18	TSP <= 0.328 lb/hr from SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	PM-10 (Total) <= 0.328 lb/hr from SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	VOC (Total) <= 0.328 lb/hr from SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U45 Construction Engine (E4501), 10.39 MMBtu/hr, Diesel fired

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	CO <= 5.94 lb/hr from SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	SO2: emissions are below the reporting threshold, based on 15 ppmw. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	NOx (Total) <= 35.8 lb/hr from SM 080001 Application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U46 Non-Utility Boiler (E4601), 1.46 MMBtu/hr, #2 fuel & Natural Gas fired, at Administration Building, Subject to MACT JJJJJJ**

Operating Scenario: **OS Summary**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Subject to Federal Requirements: * 40 CFR 63, MACT Subpart A - General Provisions * 40 CFR 63, MACT Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63]	None.	None.	None.
2	No visible emissions, exclusive of condensed water vapor, except for a period of not longer than three minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.6]). [N.J.A.C. 7:27- 3.2]	None.	None.	None.
3	NOx (Total) <= 0.89 tons/yr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	CO <= 0.53 tons/yr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 1.27 tons/yr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum Gross Heat Input <= 1.46 MMBTU/hr (HHV) per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	The emissions of other contaminants from the equipment covered by this permit are stated to be below the reporting thresholds as stated in N.J.A.C. 7:27-22, Appendix 1, Tables A & B. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U46 Non-Utility Boiler (E4601), 1.46 MMBtu/hr, #2 fuel & Natural Gas fired, at Administration Building, Subject to MACT JJJJJJ**

Operating Scenario: **OS1 Administrative Building Boiler Burning No. 2 Fuel Oil, 1.46 MMBtu/hr, Non-Utility, Steam**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	This equipment shall not cause any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property, except in areas over which the owner or operator has exclusive use or occupancy. [N.J.A.C. 7:27- 5]	None.	None.	Any operation of the equipment which may cause 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 be reported by the Permittee as required by the Air Pollution Control Act. The Permittee shall immediately notify the Department of any non-compliance by calling the Environmental Action Hotline at (877) 927-6337. Notify by phone: Upon occurrence of event. [N.J.S.A. 26:2C-19(e)]
2	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
3	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time 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.
4	NOx (Total) <= 0.2 lb/hr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 0.05 lb/hr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	SO2 <= 0.29 lb/hr per modification application BOP130001. [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
7	Fuel Oil Usage <= 89,352 gal/yr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil 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)]	Fuel Oil Usage: Recordkeeping by data acquisition system (DAS) / electronic data storage each month during operation or strip chart continuously. Gallons per 12 consecutive month period shall be calculated by the sum of the gallons consumed during any one month added to the sum of the gallons consumed during the preceding 11 months. The procedure will begin with the first month following the final issuance of the operating permit. This accounting will not include fuel consumption during months prior to the approval of the operating permit. The permittee will select the time period for accounting, such as fiscal month, calendar month or production month. Once selected, the period must not be changed without prior approval from NJDEP. [N.J.A.C. 7:27-22.16(o)]	None.
8	Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the permittee must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11201(b)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
9	The permittee at all times must operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11205(a)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The permittee shall keep records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11225(c)]	None.
10	The permittee must submit the Initial Notification of Applicability no later than January 20, 2014 or within 120 days after startup of new source. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11225(a)(2)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. Maintain a copy of the Initial Notification and all supporting documentation for a period of 5 years. [40 CFR 63.11225(c)] and [40 CFR 63.11225(d)]	Submit notification: Once initially by January 20, 2014 or within 120 days after startup of a new source to the Administrator, EPA Region 2, certified by the responsible official. The Initial Notification shall also be submitted to NJ DEP, per 40 CFR 63.13. The permittee may use instructions and the forms provided on the EPA website http://www.epa.gov/ttn/atw/boiler/boilerpg.html [40 CFR 63.11225]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
11	Prepare a biennial or 5-year, as applicable, compliance certification report by March 1 of the applicable year and submit to the delegated authority upon request, a compliance certification report for the previous calendar years containing the following information: (1) Company name and address. (2) Statement by responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ. The notification must include the following certification(s) of compliance and signed by a responsible official: (i) "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." (ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." (3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken. [40 CFR 63.11225(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall keep the records prescribed at 40 CFR 63.11225(b)(1) through (b)(2). [40 CFR 63.11225(b)]	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	The permittee must provide notice of the date upon which the permittee switched fuels, made the physical change, or took a permit limit that may result in the applicability of a different subcategory or switch out of 40 CFR Part 63, Subpart JJJJJJ due to a switch to 100 percent natural gas. The notice must be provided within 30 days of the change. [MACT Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources]- [40 CFR 63.11225(g)]	None.	None.	Submit notification: Upon occurrence of event. Submit a written notification to the Administrator, EPA Region 2. The notification must identify: (1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice. (2) The date upon which the fuel switch, physical change, or permit limit occurred. [40 CFR 63.11225(g)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	The permittee shall conduct tune-up once in 5-years. The first tune-up shall be conducted no later than 61 months after the boiler initial startup. The tune-ups shall be conducted, as required in Table 2 to 40 CFR Part 63, Subpart JJJJJJ, and in accordance with 40 CFR 63.11223(b) as follows: (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The burner inspection may be delayed until the next scheduled unit shutdown, not to exceed 72 months) from the previous inspection. (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The inspection may be delayed until the next scheduled unit shutdown, not to exceed 36 months (or, in case of oxygen trim system, 72 months) from the previous inspection. (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. As per 40 CFR 63.11223(b)(7), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. [40 CFR 63.11214(b)]	Monitored by periodic emission monitoring once initially and once every 5 years. Measure the concentrations in the effluent stream of carbon monoxide (CO) in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR 63.11223(b)(5)]	Recordkeeping by manual logging of parameter or storing data in a computer data system once initially and once every 5 years. The permittee shall keep the following records for a period of 5 years following the date of each recorded action as per 40 CFR 63.11225(d) to document conformance with once every 5 years tune-up: Records identifying each boiler, the date of tune-up, the procedures followed for tune-ups and the manufacturer's specifications to which the boiler was tuned. Per 40 CFR 63.11223(b)(6), the permittee must maintain a report containing the following information on site: (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (ii) A description of any corrective actions taken as a part of the tune-up of the boiler. (iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. Additional recordkeeping is required for each seasonal boiler and each limited-use boiler, per 40 CFR 63.11225(c)(2)(v) and (vi), respectively. [40 CFR 63.11225(c)(2)]	Submit notification: Once initially. Submit a Notification of Compliance status no later than 120 days after startup electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). If the reporting form specific to MACT JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the EPA Administrator Region 2 at the appropriate address listed in 40 CFR 63.13. [40 CFR 63.11225(a)(4)]

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: **U46 Non-Utility Boiler (E4601), 1.46 MMBtu/hr, #2 fuel & Natural Gas fired, at Administration Building, Subject to MACT JJJJJJ**

Operating Scenario: **OS2 Administrative Building Boiler Burning Natural Gas, 1.46 MMBtu/hr, Non-Utility, Steam**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.67 lb/hr Particulate emission standard from combustion of fuel. [N.J.A.C. 7:27-4.2(a)].	None.	None.	None.
2	NOx (Total) <= 0.14 lb/hr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]			
3	CO <= 0.12 lb/hr per modification application BOP130001. [N.J.A.C. 7:27-22.16(a)]			
4	Natural Gas Usage <= 12.527 MMft^3/yr per modification application BOP130001. [N.J.A.C. 7:27-22.16(e)]	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 continuously. Keep records on site for the life of the equipment, and specifications of the manufacturer's rated heat input of the unit. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Bergen County Utilities Authority

Facility ID (AIMS): 02620

Street Address: FOOT OF MEHRHOF RD
P O BOX 9
LITTLE FERRY, NJ 07643

Mailing Address: FOOT OF MEHRHOF RD
P O BOX 9
LITTLE FERRY, NJ 07643

State Plane Coordinates:

X-Coordinate:	189,402
Y-Coordinate:	222,264
Units:	Meters
Datum:	NAD83
Source Org.:	Address Match
Source Type:	Approx. Addr. Match

County: Bergen

Location Description: Little Ferry Water Pollution Control Facility

Industry:

Primary SIC:	4952
Secondary SIC:	
NAICS:	221320

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

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Contact Type: BOP - Operating Permits

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New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Consultant

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New Jersey Department of Environmental Protection
Facility Profile (General)

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New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Operator

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Contact Type: Owner (Current Primary)

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Contact Type: Responsible Official

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New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Title V Compliance Certification Contact**

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Mailing Address: Foot of Mehrhof Road
P. O. Box 9
Little Ferry, NJ, NJ 07643

BERGEN CNTY UTIL AUTH WTP (02620) Date: 06/13/2022
BOP190001

New Jersey Department of Environmental Protection
Non-Source Fugitive Emissions

FG NJID	Description of Activity Causing Emission	Location Description	Reasonable Estimate of Emissions (tpy)								
			VOC (Total)	NOx	CO	SO	TSP (Total)	PM-10	Pb	HAPS (Total)	Other (Total)
FG1	Storage of Paints and Thinners.	Warehouse paint shop - Storage	0.920	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
FG2	Laboratory Hoods	Laboratory	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.07500000	0.000
Total			0.995	0.000	0.000	0.000	0.000	0.000	0.000	0.07500000	0.000

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

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	Five Kerosene Underground Storage Tanks, Four No. 2 fuel oil tanks and One diesel tank with V.P. <0.02 psia <10,000 gallons	Storage Vessel	Throughout Facility	0.000								
IS3	Vehicle Maintenance Parts Washer <6.0 Sq. Ft openning.	Other Equipment	Warehouse	0.057								
IS4	Trinco Sand Blaster <50 lb/hr processing and <0.5 lb/hr particulates emissions	Other Equipment	Warehouse	0.000				0.002	0.002			
IS7	Aeration Tanks and Settling Basins <100 ppb Toxics and <3,500 ppb VOCs in the waste water	Storage Vessel	Wastewater Treatment Process	32.800								378.000
IS8	Potassium Permanganate Feed < 50 lbs/hr	Other Equipment	Digested Sludge Thickening/ Dewatering Facility					0.460	0.460			
IS9	Thickening Polymer Feed System < 50 lbs/hr	Other Equipment	WAS Sludge Thickening Facility	2.190				1.100	1.100			
IS10	Filtrate Wet Well < or = 100 ppbw TXS; < or = 3500 ppbw VOC	Other Equipment	Digested Sludge Thickening/ Dewatering Facility	0.080								

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

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)
IS11	Filtrate Wet Well < or = 100 ppbw TXS; < or = 3500 ppbw VOC	Other Equipment	WAS Sludge Thickening Facility	0.300								
IS12	Polymer Feed System A & B	Other Equipment	Final Settling Tank A & B	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.00000000	0.000
IS13	500 Gallon Waste Oil Tank	Storage Vessel	OIl Storage Shed	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	0.000	0.000	0.000	0.00000000	0.000

BERGEN CNTY UTIL AUTH WTP (02620) Date: 6/13/2022

BOP190001

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E601	HW Boiler 1	Hot Water Boiler #1, 20.90 MMBtu/hr, Indirect	Boiler	BOP050001		No	1/1/1997	
E602	HW Boiler 2	Hot Water Boiler #2, 20.90 MMBtu/hr, Indirect	Boiler	BOP050001		No	1/1/1997	
E605	WRHSE BLR B1	Warehouse Boiler B1, 3.99 MMBtu/hr, Indirect	Boiler	BOP050001		No	1/1/1982	
E801	SB Gen #2	Standby Turbo Gas Generator #2, Simple Cycle, 38.9 MMBtu/hr, 3140 KW	Combustion Turbine	PCP960010		No	1/1/1984	
E802	SB Gen #3	Standby Turbo Gas Generator #3, Simple Cycle, 38.9 MMBtu/hr, 3140 KW	Combustion Turbine	PCP960009		No	1/1/1984	
E803	SB Gen #4	Standby Turbo Gas Generator #4, Simple Cycle, 38.9 MMBtu/hr, 3140 KW	Combustion Turbine	PCP960008		No	1/1/1984	
E1301	digester #1	sludge digester #1	Other Equipment	BOP050001	1/1/1960	No	1/1/1985	
E1302	digester #2	sludge digester #2	Other Equipment	BOP050001	1/1/1960	No	1/1/1985	
E1303	digester #3	sludge digester #3	Other Equipment	BOP050001	1/1/1960	No	1/1/1985	
E1304	digester #4	sludge digester #4	Other Equipment	BOP050001	1/1/1960	No	1/1/1985	
E1305	digester #5	sludge digester #5	Other Equipment	BOP050001	1/1/1960	No	1/1/1985	
E1401	Gas tank	10,000 Gal Gas Tank	Storage Vessel	PCP960014		No	1/1/1986	
E1801	SDW Boil 1	SDW Boiler #1, 0.16 MMBtu/hr, Water, Indirect	Boiler	GEN040001		No	1/1/1992	

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1802	SDW Boil 2	SDW Boiler #2, 2.55 MMBtu/hr, Steam, Indirect	Boiler	GEN040001		No	1/1/1992	
E1803	SDW Boil 3	SDW Boiler #3, 2.55 MMBtu/hr, Water, Indirect	Boiler	GEN040001		No	1/1/1992	
E3601	Tank No. 1	8000 gal sodium bisulfide storage tank	Storage Vessel	PCP000002	6/1/1999	No	6/1/1999	
E3602	Tank No. 2	8000 gal sodium bisulfite storage tank	Storage Vessel	PCP000002	6/1/1999	No	6/1/1999	
E3603	Tank No. 3	8000 gal sodium bisulfite storage tank	Storage Vessel	PCP000002	6/1/1999	No	6/1/1999	
E3604	Tank No. 4	8000 gal sodium bisulfite storage tank	Storage Vessel	PCP000002	6/1/1999	No	6/1/1999	
E3801	sludge tank1	Dewatering Sludge Holding Tank#1	Storage Vessel	BOP050001		Yes		
E3802	sludge tank2	Dewatering Sludge Holding Tank#2	Storage Vessel	BOP050001		Yes		
E4001	E4001	Wet Well North	Other Equipment	BOP990001				
E4002	E4002	Wet Well South	Other Equipment	BOP990001				
E4003	E4003	2-meter Gravity Belt Thickener/ Belt Filter Press No. 1 & Thickened Sludge Hopper	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4004	E4004	2-meter Gravity Belt Thickener/ Belt Filter Press No. 2 & Thickened Sludge Hopper	Manufacturing and Materials Handling Equipment		11/1/2006	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E4005	E4005	2-meter Gravity Belt Thickener/ Belt Filter Press No. 3 & Thickened Sludge Hopper	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4006	E4006	2-meter Gravity Belt Thickener/ Belt Filter Press No. 4 & Thickened Sludge Hopper	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4007	E4007	Belt Filter Press No. 1	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4008	E4008	Screw Conveyor No. 1	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4009	E4009	Screw Conveyor No. 2	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4010	E4010	Screw Conveyor No. 3	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4011	E4011	Screw Conveyor No. 4	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4012	E4012	Sludge Cake Container No. 1	Other Equipment		11/1/2006	No		
E4013	E4013	Sludge Cake Container No. 2	Other Equipment		11/1/2006	No		
E4101	E4101	Screw Feeder No. 1	Manufacturing and Materials Handling Equipment		11/1/2006	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E4102	E4102	Mix Tank No. 1A	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4103	E4103	Mix Tank No. 1B	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4104	E4104	Screw Feeder No. 2	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4105	E4105	Mix Tank No. 2A	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4106	E4106	Mix Tank No. 2B	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4201	E4201	WAS Wet Well - North	Other Equipment		11/1/2006	No		
E4202	E4202	WAS Wet Well - South	Other Equipment		11/1/2006	No		
E4203	E4203	3-meter Gravity Belt Thinkener & Hopper No. 1	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4204	E4204	3-meter Gravity Belt Thinkener & Hopper No. 2	Manufacturing and Materials Handling Equipment		11/1/2006	No		
E4205	E4205	3-meter Gravity Belt Thinkener & Hopper No. 3	Manufacturing and Materials Handling Equipment		11/1/2006	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E4301	Cogen 1	Cogeneration Engine #1, 13.71 MMBtu/hr, 4-Stroke, Lean Burn	Stationary Reciprocating Engine	BOP060002	4/1/2007	No	6/12/2007	
E4302	Cogen 2	Cogeneration Engine #2, 13.71 MMBtu/hr, 4-Stroke, Lean Burn	Stationary Reciprocating Engine	BOP060002	4/1/2007	No	6/12/2007	
E4303	Cogen 3	Cogeneration Engine #3 13.71 MMBTU/hr 4-Stroke Lean Burn	Stationary Reciprocating Engine	BOP140002	9/1/2014	No		
E4401	Conv/Educ 1	Conveyor Eductor 1for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP060002	4/1/2008	No		
E4402	Conv/Educ 2	Conveyor Eductor 2 for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP060002	4/1/2008	No		
E4403	Conv/Educ 3	Convyor Eductor 3 for Carbon Abosrption system	Manufacturing and Materials Handling Equipment	BOP060002	4/1/2008	No		
E4404	Hopper	Hopper for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP060002	4/1/2008	No		
E4405	Conv/Educ 4	Conveyor Eductor 4for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP140002	1/1/2015	No		
E4406	Conv/Educ 5	Conveyor Eductor 5for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP140002	1/1/2015	No		

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E4407	ConvEduc 6	Conveyor Eductor 6for Carbon Absorption System	Manufacturing and Materials Handling Equipment	BOP140002	1/1/2015	No		
E4408	Hopper 2	Hopper for Carbon Adsoprtion System	Manufacturing and Materials Handling Equipment	BOP140002	1/1/2015	No		
E4501	Const. Eng.	Portable Construction Generator, 10.39 MMBtu/hr	Fuel Combustion Equipment (Other)		2/1/2008	No		
E4601	Boiler - ADM	Adminstrative Building Boiler, 1.46 MMBtu/hr, Non-Utility, Steam	Boiler		2/1/2013	No		

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E601 (Boiler)
Print Date: 6/13/2022

Make:	
Manufacturer:	Cleaver Brooks
Model:	CB 200-500-30 # - PPHW
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	20.90
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Water Only
Steam Output (lb/hr):	
Fuel Firing Method:	Wall-fired or cross-fired
Description (if other):	
Draft Type:	Forced
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☑	Type:
Staged Air Combustion:	☑	
Flue Gas Recirculation (FGR):	☐	Amount (%):

Have you attached a diagram showing the location and/or the configuration of this equipment?	Yes
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E605 (Boiler)
Print Date: 6/13/2022

Make:	
Manufacturer:	
Model:	
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	3.99
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Water Only
Steam Output (lb/hr):	
Fuel Firing Method:	
Description (if other):	
Draft Type:	
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☑ Type:	residential
Staged Air Combustion:	☑	
Flue Gas Recirculation (FGR):	☐ Amount (%):	

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? No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E801 (Combustion Turbine)
Print Date: 6/13/2022

Make:	ALLISON		
Manufacturer:	NATCO		
Model:	501-K		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	38.90		
Type of Turbine:	Industrial		
Type of Cycle:	Simple-Cycle	Description:	
Industrial Application:	Other	Description:	STANDBY
Power Output:	3,140.00	Units:	Kilowatts

Is the combustion turbine using (check all that apply):

A Dry Low NOx Combustor:	☐		
Steam Injection:	☐	Steam to Fuel Ratio:	
Water Injection:	☐	Water to Fuel Ratio:	
Other:	☐	Description:	

Is the turbine Equipped with a Duct Burner? ○ Yes ● No

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

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E802 (Combustion Turbine)
Print Date: 6/13/2022

Make:	ALLISON		
Manufacturer:	NATCO		
Model:	501-K		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	38.90		
Type of Turbine:	Industrial		
Type of Cycle:	Simple-Cycle	Description:	
Industrial Application:	Other	Description:	STANDBY
Power Output:	3,140.00	Units:	Kilowatts

Is the combustion turbine using (check all that apply):

A Dry Low NOx Combustor:	☐		
Steam Injection:	☐	Steam to Fuel Ratio:	
Water Injection:	☐	Water to Fuel Ratio:	
Other:	☐	Description:	

Is the turbine Equipped with a Duct Burner? ○ Yes ● No

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

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E602 (Boiler)
Print Date: 6/13/2022

Make:	
Manufacturer:	Cleaver Brooks
Model:	CB 200-500-30
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	20.90
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Water Only
Steam Output (lb/hr):	
Fuel Firing Method:	Wall-fired or cross-fired
Description (if other):	
Draft Type:	Forced
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☑	Type:
Staged Air Combustion:	☑	
Flue Gas Recirculation (FGR):	☐	Amount (%):

Have you attached a diagram showing the location and/or the configuration of this equipment?	Yes
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E803 (Combustion Turbine)
Print Date: 6/13/2022

Make:	ALLISON		
Manufacturer:	NATCO		
Model:	501-K		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	38.90		
Type of Turbine:	Industrial		
Type of Cycle:	Simple-Cycle	Description:	
Industrial Application:	Other	Description:	STANDBY
Power Output:	3,140.00	Units:	Kilowatts

Is the combustion turbine using (check all that apply):

A Dry Low NOx Combustor:	☐		
Steam Injection:	☐	Steam to Fuel Ratio:	
Water Injection:	☐	Water to Fuel Ratio:	
Other:	☐	Description:	

Is the turbine Equipped with a Duct Burner? ○ Yes ● No

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

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1301 (Other Equipment)
Print Date: 6/13/2022

Make:	
Manufacturer:	Pacific Flush Tank Digestors
Model:	
Equipment Type:	Sludge Digestor
Capacity:	1.0733
Units:	MMgal/yr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments: Sludge Capacity is 1073304 Gallons.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1302 (Other Equipment)
Print Date: 6/13/2022

Make:	
Manufacturer:	Pacific Flush Tank Digestors
Model:	
Equipment Type:	Sludge Digestor
Capacity:	1.0733
Units:	MMgal/yr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments: Sludge Capacity is 1073304 Gallons.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1303 (Other Equipment)
Print Date: 6/13/2022

Make:	
Manufacturer:	Pacific Flush Tank Digestors
Model:	
Equipment Type:	Sludge Digestor
Capacity:	1.0733
Units:	MMgal/yr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments: Sludge Capacity is 1073304 Gallons.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1304 (Other Equipment)
Print Date: 6/13/2022

Make:	
Manufacturer:	Pacific Flush Tank Digestors
Model:	
Equipment Type:	Sludge Digestor
Capacity:	1.0733
Units:	MMgal/yr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments: Sludge Capacity is 1073304 Gallons.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1305 (Other Equipment)
Print Date: 6/13/2022

Make:	
Manufacturer:	Pacific Flush Tank Digestors
Model:	
Equipment Type:	Sludge Digestor
Capacity:	1.0733
Units:	MMgal/yr
Description:	

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

- ○ Yes
- ● No

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

- ○ Yes
- ● No

Comments: Sludge Capacity is 1073304 Gallons.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1401 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,000
Units:	gallons
Ground Location:	Below Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	
Shell Construction:	
Is the Shell Insulated?	Yes
Type of Insulation:	DOUBLE WALLS
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	
Length (ft):	30.22
Width (ft):	
Diameter (ft):	7.92
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	160.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	
Roof Type:	Horizontal fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	
Does the storage vessel	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1401 (Storage Vessel)
Print Date: 6/13/2022

Does the storage vessel have a Conservation Vent?	
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?	No
Comments:	diameter is 7' 11

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1801 (Boiler)
Print Date: 6/13/2022

Make:	88 BOILER
Manufacturer:	Weil McLain
Model:	988
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	2.55
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Water Only
Steam Output (lb/hr):	
Fuel Firing Method:	Wall-fired or cross-fired
Description (if other):	
Draft Type:	
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☐ Type:	
Staged Air Combustion:	☐	
Flue Gas Recirculation (FGR):	☐ Amount (%):	

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

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1802 (Boiler)
Print Date: 6/13/2022

Make:	88 BOILER
Manufacturer:	Weil McLain
Model:	988
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	2.55
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Steam Only
Steam Output (lb/hr):	
Fuel Firing Method:	Wall-fired or cross-fired
Description (if other):	
Draft Type:	
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☐ Type:	
Staged Air Combustion:	☐	
Flue Gas Recirculation (FGR):	☐ Amount (%):	

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

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E1803 (Boiler)
Print Date: 6/13/2022

Make:	NICKEL SHIELD TURBO POWER
Manufacturer:	PVI INDUSTRIES
Model:	1500 NHE 125 ATP
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	2.55
Boiler Type:	Fire Tube
Utility Type:	Non-Utility
Output Type:	Water Only
Steam Output (lb/hr):	
Fuel Firing Method:	
Description (if other):	
Draft Type:	
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☐	Type:
Staged Air Combustion:	☐	
Flue Gas Recirculation (FGR):	☐	Amount (%):

Have you attached a diagram showing the location and/or the configuration of this equipment?	Yes
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3601 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	8,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	Gray (Medium)
Description (if other):	
Shell Condition:	Gunite Lining
Paint Condition:	Good
Shell Construction:	Welded
Is the Shell Insulated?	Yes
Type of Insulation:	Polyisocyanurate foam
Insulation Thickess (in):	2.0
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	0.07000
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	14.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Top Pipe
Description (if other):	
Maximum Design Fill Rate:	70.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	1.50
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No
Does the storage vessel	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3601 (Storage Vessel)
Print Date: 6/13/2022

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3602 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	8,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	Gray (Medium)
Description (if other):	
Shell Condition:	Gunite Lining
Paint Condition:	Good
Shell Construction:	Welded
Is the Shell Insulated?	Yes
Type of Insulation:	Polyisocyanurate foam
Insulation Thickess (in):	2.0
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	0.07000
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	14.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Top Pipe
Description (if other):	
Maximum Design Fill Rate:	70.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	1.50
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No
Does the storage vessel	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3602 (Storage Vessel)
Print Date: 6/13/2022

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3603 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	8,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	Gray (Medium)
Description (if other):	
Shell Condition:	Gunite Lining
Paint Condition:	Good
Shell Construction:	Welded
Is the Shell Insulated?	Yes
Type of Insulation:	Polyisocyanurate foam
Insulation Thickess (in):	2.0
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	0.07000
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	14.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Top Pipe
Description (if other):	
Maximum Design Fill Rate:	70.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	1.50
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No
Does the storage vessel	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3603 (Storage Vessel)
Print Date: 6/13/2022

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3604 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	8,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	Gray (Medium)
Description (if other):	
Shell Condition:	Gunite Lining
Paint Condition:	Good
Shell Construction:	Welded
Is the Shell Insulated?	Yes
Type of Insulation:	Polyisocyanurate foam
Insulation Thickess (in):	2.0
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	0.07000
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	14.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Top Pipe
Description (if other):	
Maximum Design Fill Rate:	70.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	1.50
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No
Does the storage vessel	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3604 (Storage Vessel)
Print Date: 6/13/2022

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

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3801 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	999,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	White
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	19.00
Length (ft):	
Width (ft):	
Diameter (ft):	100.13
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Bottom Pipe
Description (if other):	
Maximum Design Fill Rate:	400.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Internal floating roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	2.00
Roof Construction:	
Primary Seal Type:	Liquid Mounted Resilient
Secondary Seal Type:	None
Total Number of Seals:	1
Roof Support:	Self-supported
Does the storage vessel have a Vapor Return Loop?	No

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3801 (Storage Vessel)
Print Date: 6/13/2022

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3802 (Storage Vessel)
Print Date: 6/13/2022

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	999,000
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	White
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	19.00
Length (ft):	
Width (ft):	
Diameter (ft):	100.13
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Bottom Pipe
Description (if other):	
Maximum Design Fill Rate:	400.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Internal floating roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	2.00
Roof Construction:	
Primary Seal Type:	Liquid Mounted Resilient
Secondary Seal Type:	None
Total Number of Seals:	1
Roof Support:	Self-supported
Does the storage vessel have a Vapor Return Loop?	No

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E3802 (Storage Vessel)
Print Date: 6/13/2022

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4001 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Digested Sludge Thickening/ Dewatering Wet Well - North
Capacity:	10,415.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: gallons

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4002 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Digested Sludge Thickening/ Dewatering Wet Well - South
Capacity:	10,415.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: gallons

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4003 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	3-Belt Klampress
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener/ Belt Filter Press & Hop
Capacity:	3.00E+02
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4004 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	3-Belt Klampress
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener/ Belt Filter Press & Hop
Capacity:	3.00E+02
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4005 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	3-Belt Klampress
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener/ Belt Filter Press & Hop
Capacity:	3.00E+02
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4006 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	3-Belt Klampress
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener/ Belt Filter Press & Hop
Capacity:	3.00E+02
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4007 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	Klampress
Type of Manufacturing and Materials Handling Equipment:	Belt Filter Press
Capacity:	3.00E+02
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4008 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Parkson
Model:	U500
Type of Manufacturing and Materials Handling Equipment:	Screw Conveyor (Municipal Sludge)
Capacity:	1.50E+01
Units:	other units
Description (if other):	cubic feet per minute
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4009 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Parkson
Model:	U500
Type of Manufacturing and Materials Handling Equipment:	Screw Conveyor (Municipal Sludge)
Capacity:	1.50E+01
Units:	other units
Description (if other):	cubic feet per minute
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4010 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Parkson
Model:	U500
Type of Manufacturing and Materials Handling Equipment:	Screw Conveyor (Municipal Sludge)
Capacity:	1.50E+01
Units:	other units
Description (if other):	cubic feet per minute
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4011 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Parkson
Model:	U500
Type of Manufacturing and Materials Handling Equipment:	Screw Conveyor (Municipal Sludge)
Capacity:	1.50E+01
Units:	other units
Description (if other):	cubic feet per minute
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4012 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Sludge Cake Container
Capacity:	540.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: Cubic Feet

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4013 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Sludge Cake Container
Capacity:	540.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: Cubic Feet

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4101 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stranco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Screw Feeder (Polymer Feed System)
Capacity:	6.00E+01
Units:	other units
Description (if other):	pounds per hour
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4102 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stanco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Polymer Mixing Tank
Capacity:	1.50E+03
Units:	gallons
Description (if other):	
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4103 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stanco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Polymer Mixing Tank
Capacity:	1.50E+03
Units:	gallons
Description (if other):	
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4104 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stranco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Screw Feeder (Polymer Feed System)
Capacity:	6.00E+01
Units:	other units
Description (if other):	pounds per hour
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4105 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stanco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Polymer Mixing Tank
Capacity:	1.50E+03
Units:	gallons
Description (if other):	
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4106 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Stanco
Model:	DP-2000
Type of Manufacturing and Materials Handling Equipment:	Polymer Mixing Tank
Capacity:	1.50E+03
Units:	gallons
Description (if other):	
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4201 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Waste Activated Sludge Thickening Wet Well - North
Capacity:	2,000.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: gallons

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4202 (Other Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	NA
Model:	NA
Equipment Type:	Waste Activated Sludge Thickening Wet Well - South
Capacity:	2,000.00
Units:	
Description:	

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

- (●) Yes
- ( ) No

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

- ( ) Yes
- (●) No

Comments: Capacity Units: gallons

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4203 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	Aquabelt
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener & Hopper
Capacity:	1.50E+03
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4204 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	Aquabelt
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener & Hopper
Capacity:	1.50E+03
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4205 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	NA
Manufacturer:	Ashbrook Simon Hartley
Model:	Aquabelt
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener & Hopper
Capacity:	1.50E+03
Units:	other units
Description (if other):	gallons per minute (gpm)
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?	No
Comments:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4301 (Stationary Reciprocating Engine)
Print Date: 6/13/2022

Make:	GE Jenbacher
Manufacturer:	General Electric
Model:	JMS 420, April 2007 Model Year
Maximum Rated Gross Heat Input (MMBtu/hr):	13.71
Class:	Lean Burn
Description:	
Duty:	Base Loaded
Description:	
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	4-stroke
Power Output (BHP):	1966
Electric Output(KW):	1412
Compression Ratio:	12.5
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1800
Engine Exhaust Temperature (°F):	844
Air to Fuel Ratio at Peak Load:	2.9
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6215
Output Type:	Cogeneration
Heat to Power Ratio:	3
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description: Catalytic Oxidizer

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: Not subject to NSPS Subpart JJJJ because the engines were manufactured in April 2007, that predates July 1, 2007 applicability deadline.

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4302 (Stationary Reciprocating Engine)
Print Date: 6/13/2022

Make:	GE Jenbacher
Manufacturer:	General Electric
Model:	JMS 420, April 2007 Model Year
Maximum Rated Gross Heat Input (MMBtu/hr):	13.71
Class:	Lean Burn
Description:	
Duty:	Base Loaded
Description:	
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	4-stroke
Power Output (BHP):	1966
Electric Output(KW):	1412
Compression Ratio:	12.5
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1800
Engine Exhaust Temperature (°F):	844
Air to Fuel Ratio at Peak Load:	2.9
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6215
Output Type:	Cogeneration
Heat to Power Ratio:	3
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description:	Catalytic Oxidizer

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:	Not subject to NSPS Subpart JJJJ because the engines were manufactured in April 2007, that predates July 1, 2007 applicability deadline.		

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4303 (Stationary Reciprocating Engine)
Print Date: 6/13/2022

Make:	GE Jenbacher
Manufacturer:	General Electric
Model:	JMS 420, 2013 Model Year 2014
Maximum Rated Gross Heat Input (MMBtu/hr):	13.71
Class:	Lean Burn
Description:	
Duty:	Base Loaded
Description:	
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	4-stroke
Power Output (BHP):	1966
Electric Output(KW):	1412
Compression Ratio:	12.5
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1800
Engine Exhaust Temperature (°F):	844
Air to Fuel Ratio at Peak Load:	2.9
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	6215
Output Type:	Cogeneration
Heat to Power Ratio:	3
Is the Engine Using a Turbocharger?	○ Yes ● No
Is the Engine Using an Aftercooler?	○ Yes ● No

Is the Engine Using (check all that apply):

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

Description: Catalytic Oxidizer

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: Subject to NSPS Subpart JJJJ because the engine was manufactured after April 2007. This engine is not certified by EPA.

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4401 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4402 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4403 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4404 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Applied Filter Technology or equivalent
Manufacturer:	Applied Filter Technology or equivalent
Model:	909 or equivalent
Type of Manufacturing and Materials Handling Equipment:	Hopper
Capacity:	2.00E+00
Units:	ft^3
Description (if other):	
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?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4405 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4406 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4407 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Fox Venturi Eductor or equivalent
Manufacturer:	Fox Valve Development Corp. or equivalent
Model:	4" Series 300-SCE-cs Solids Conveying Educt
Type of Manufacturing and Materials Handling Equipment:	Conveyor/Eductor System
Capacity:	4.00E+03
Units:	other units
Description (if other):	lb/hr
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Information is based on preliminary design

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4408 (Manufacturing and Materials Handling Equipment)
Print Date: 6/13/2022

Make:	Applied Filter Technology, Inc.
Manufacturer:	Applied Filter Technology, Inc
Model:	909 or equivalent
Type of Manufacturing and Materials Handling Equipment:	Hopper
Capacity:	2.00E+00
Units:	ft^3
Description (if other):	
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?	No
Comments:	Each vessel contains 140 sq feet of media, weight of the media 1,200 lb per vessel. There are three vessels: two in operation , one spare. Designed in 2002.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4501 (Fuel Combustion Equipment (Other))
Print Date: 6/13/2022

Make:	Cummins
Manufacturer:	Cummins
Model:	KTA-3067-G2
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	10.39
Type of Heat Exchange:	Indirect
Equipment Type Description:	Portable Construction Engine for Construction Projects only. 1972 model year engine.

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: This will be stored off-site and used onsite for construction projects under the Construction Engine Provisions

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

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 E4601 (Boiler)
Print Date: 6/13/2022

Make:	Power Flame Burner
Manufacturer:	Smith
Model:	C1-GO-12
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	1.46
Boiler Type:	Field Erected
Utility Type:	Non-Utility
Output Type:	Steam Only
Steam Output (lb/hr):	
Fuel Firing Method:	Wall-fired or cross-fired
Description (if other):	
Draft Type:	
Heat Exchange Type:	Indirect

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

Low NOx Burner:	☐	Type:
Staged Air Combustion:	☐	
Flue Gas Recirculation (FGR):	☐	Amount (%):

Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	Administrative building boiler, Constructed 2/1/2013

BERGEN CNTY UTIL AUTH WTP (02620) Date: 6/13/2022

BOP190001

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
CD1308	V Flare 1	Varec Flare 18.4 MMBTU/hr	Flare	12/1/2021	No		
CD1309	V Flare 2	Varec Flare 18,4 MMBTU/hr	Flare	12/1/2021	No		
CD3601	S1	Bisulfite Tank No. 1 Scrubber	Scrubber (Packed Tower)	6/1/1999	No	6/1/1999	
CD3602	S2	Bisulfite Tank No. 2 Scrubber	Scrubber (Packed Tower)	6/1/1999	No	6/1/1999	
CD3603	S3	Bisulfite Tank No. 3 Scrubber	Scrubber (Packed Tower)	6/1/2000	No	6/1/2000	
CD3604	S4	Bisulfite Tank No. 4 Scrubber	Scrubber (Packed Tower)	6/1/2000	No	6/1/2000	
CD3802	AB Flare 3	ABUTEC HTF 1.0 Enclosed Flare, 17 MMBtu/hr, 410 acfm	Flare	7/1/2009	No		
CD4001	CD4001	Digested Sludge Thickening/ Dewatering Carbon Adsorber System	Adsorber	11/1/2006	No		
CD4201	CD4201	WAS Thickening Carbon Adsorber System	Adsorber	11/1/2006	No		
CD4301	CO #1	Catalytic Oxidizer for Engine #1	Oxidizer (Catalytic)	3/1/2007	No		
CD4302	CO #2	Catalytic Oxidizer for Engine #2	Oxidizer (Catalytic)	3/1/2007	No		
CD4303	CO #3	Catalytic Oxidizer for Engine #3	Oxidizer (Catalytic)	9/1/2014	No		
CD4401	FS 1	Filter Sock 1 for Cogen, 0.5 Micron	Particulate Filter (Other)	4/1/2008	No		
CD4402	FS2	Filter Sock 2 for Cogen, 0.5 Micron	Particulate Filter (Other)	4/1/2008	No		
CD4403	FS3	Filter Sock 3 for Cogen, 0.5 Micron	Particulate Filter (Other)	4/1/2008	No		
CD4404	FS4	Filter Sock 4 for Cogen, 0.5 Micron	Particulate Filter (Other)	9/1/2014	No		

BERGEN CNTY UTIL AUTH WTP (02620) Date: 6/13/2022
BOP190001

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
CD4405	FS5	Filter Sock 5 for Cogen, 0.5 Micron	Particulate Filter (Other)	9/1/2014	No		
CD4406	FS6	Filter Sock 6 for Cogen, 0.5 Micron	Particulate Filter (Other)	9/1/2014	No		

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD1309 (Flare)
Print Date: 6/13/2022

Make:	Varec
Manufacturer:	Varec
Model:	Varec 244ESE
Type:	Enclosed
Minimum Residence Time (sec):	
Maximum Rated Gross Heat Input (MMBtu/hr):	18.40
Auxilliary Fuel:	Other
Description:	Digester Gas
Method of Pilot Flame Monitoring:	
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	(●) Yes ( ) No
Automatic Reignition After Loss of Flame?	(●) Yes ( ) No
Minimum Gas Flow Rate (acfm):	450.0
Minimum Operating Temperature (ºF):	500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	550.00
Flare Operation Type:	
Does Flare have smokeless design?	(●) Yes ( ) No
Is Flare equipped with flame retainer?	(●) Yes ( ) No
Is Flare equipped with flame arrestor?	(●) Yes ( ) No
Is Flare equipped with LEL monitor?	( ) Yes (●) No
Flare Stack Diameter (inches):	78.25
Lower Heat Content of source gas (BTU/scf):	680
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficency (%):	99.00
How was Efficency determined?	Design of Flare
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	5
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Pressure Monitor set at 4.5 in W.C.
Have you attached data from recent performance testing?	( ) Yes (●) No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	(●) Yes ( ) No

● Yes ○ No

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

● Yes ○ No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD3601 (Scrubber (Packed Tower))
Print Date: 6/13/2022

Make:	EST Corporation
Manufacturer:	EST Corporation
Model:	Type 955
Is the Scrubber Used for Particulate Control?	○ Yes ● No
Is the Scrubber Used for Gas Control?	● Yes ○ No
Is the Scrubber Equipped with a Mist Eliminator?	● Yes ○ No
Minimum Pump Discharge Pressure (in. H20):	277.00
Maximum Pump Discharge Pressure (in. H20):	277.00
Method of Monitoring Pump Discharge Pressure:	Flow Control Valve
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	N/A
Minimum Scrubber Medium Inlet Pressure (in. H20):	277.00
Minimum Operating Liquid Flow Rate (gpm):	12.00
Maximum Operating Liquid Flow Rate (gpm):	12.00
Method of Monitoring Liquid Flow Rate:	Flow Control Valve
Minimum Operating Gas Flow Rate (acfm):	
Maximum Operating Gas Flow Rate (acfm):	15.00
Method of Monitoring Gas Flow Rate:	
Minimum Operating Pressure Drop (in. H20):	
Maximum Operating Pressure Drop (in. H20):	
Method of Monitoring Pressure Drop:	
Relative Direction of the Gas-Liquid Flow:	Other
Description:	Opposite
Height of Packed Section (ft):	10
Type of Packing Material:	Polypropoline
Size of Packing Material (in):	0.62
Tower Diameter (ft):	1.00
Total Tower Height (ft):	14.50
Maximum Operating Temperature of the Inlet Gas (°F):	
Maximum Operating Temperature of the Exhuast Gas(°F):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	None
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?

○ Yes ● No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD3602 (Scrubber (Packed Tower))
Print Date: 6/13/2022

Make:	EST Corporation
Manufacturer:	EST Corporation
Model:	Type 955
Is the Scrubber Used for Particulate Control?	○ Yes ● No
Is the Scrubber Used for Gas Control?	● Yes ○ No
Is the Scrubber Equipped with a Mist Eliminator?	● Yes ○ No
Minimum Pump Discharge Pressure (in. H20):	277.00
Maximum Pump Discharge Pressure (in. H20):	277.00
Method of Monitoring Pump Discharge Pressure:	Flow Control Valve
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	N/A
Minimum Scrubber Medium Inlet Pressure (in. H20):	277.00
Minimum Operating Liquid Flow Rate (gpm):	12.00
Maximum Operating Liquid Flow Rate (gpm):	12.00
Method of Monitoring Liquid Flow Rate:	Flow Control Valve
Minimum Operating Gas Flow Rate (acfm):	
Maximum Operating Gas Flow Rate (acfm):	15.00
Method of Monitoring Gas Flow Rate:	
Minimum Operating Pressure Drop (in. H20):	
Maximum Operating Pressure Drop (in. H20):	
Method of Monitoring Pressure Drop:	
Relative Direction of the Gas-Liquid Flow:	Other
Description:	Opposite
Height of Packed Section (ft):	10
Type of Packing Material:	Polypropoline
Size of Packing Material (in):	0.62
Tower Diameter (ft):	1.00
Total Tower Height (ft):	14.50
Maximum Operating Temperature of the Inlet Gas (°F):	
Maximum Operating Temperature of the Exhuast Gas(°F):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	None
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?

○ Yes ● No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD3603 (Scrubber (Packed Tower))
Print Date: 6/13/2022

Make:	EST Corporation
Manufacturer:	EST Corporation
Model:	Type 955
Is the Scrubber Used for Particulate Control?	○ Yes ● No
Is the Scrubber Used for Gas Control?	● Yes ○ No
Is the Scrubber Equipped with a Mist Eliminator?	● Yes ○ No
Minimum Pump Discharge Pressure (in. H20):	277.00
Maximum Pump Discharge Pressure (in. H20):	277.00
Method of Monitoring Pump Discharge Pressure:	Flow Control Valve
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	N/A
Minimum Scrubber Medium Inlet Pressure (in. H20):	277.00
Minimum Operating Liquid Flow Rate (gpm):	12.00
Maximum Operating Liquid Flow Rate (gpm):	12.00
Method of Monitoring Liquid Flow Rate:	Flow Control Valve
Minimum Operating Gas Flow Rate (acfm):	
Maximum Operating Gas Flow Rate (acfm):	15.00
Method of Monitoring Gas Flow Rate:	
Minimum Operating Pressure Drop (in. H20):	
Maximum Operating Pressure Drop (in. H20):	
Method of Monitoring Pressure Drop:	
Relative Direction of the Gas-Liquid Flow:	Other
Description:	Opposite
Height of Packed Section (ft):	10
Type of Packing Material:	Polypropoline
Size of Packing Material (in):	0.62
Tower Diameter (ft):	1.00
Total Tower Height (ft):	14.50
Maximum Operating Temperature of the Inlet Gas (°F):	
Maximum Operating Temperature of the Exhuast Gas(°F):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	None
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?

○ Yes ● No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD1308 (Flare)
Print Date: 6/13/2022

Make:	Varec
Manufacturer:	Varec
Model:	Varec 244ESE
Type:	Enclosed
Minimum Residence Time (sec):	
Maximum Rated Gross Heat Input (MMBtu/hr):	18.40
Auxilliary Fuel:	Other
Description:	Digester Gas
Method of Pilot Flame Monitoring:	
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	(●) Yes ( ) No
Automatic Reignition After Loss of Flame?	(●) Yes ( ) No
Minimum Gas Flow Rate (acfm):	450.0
Minimum Operating Temperature (ºF):	500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	550.00
Flare Operation Type:	
Does Flare have smokeless design?	(●) Yes ( ) No
Is Flare equipped with flame retainer?	(●) Yes ( ) No
Is Flare equipped with flame arrestor?	(●) Yes ( ) No
Is Flare equipped with LEL monitor?	( ) Yes (●) No
Flare Stack Diameter (inches):	78.25
Lower Heat Content of source gas (BTU/scf):	680
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficency (%):	99.00
How was Efficency determined?	Design of Flare
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	5
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Pressure Monitor set at 4.5 in W.C.
Have you attached data from recent performance testing?	( ) Yes (●) No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	(●) Yes ( ) No

● Yes ○ No

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

● Yes ○ No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD3604 (Scrubber (Packed Tower))
Print Date: 6/13/2022

Make:	EST Corporation
Manufacturer:	EST Corporation
Model:	Type 955
Is the Scrubber Used for Particulate Control?	○ Yes ● No
Is the Scrubber Used for Gas Control?	● Yes ○ No
Is the Scrubber Equipped with a Mist Eliminator?	● Yes ○ No
Minimum Pump Discharge Pressure (in. H20):	277.00
Maximum Pump Discharge Pressure (in. H20):	277.00
Method of Monitoring Pump Discharge Pressure:	Flow Control Valve
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	N/A
Minimum Scrubber Medium Inlet Pressure (in. H20):	277.00
Minimum Operating Liquid Flow Rate (gpm):	12.00
Maximum Operating Liquid Flow Rate (gpm):	12.00
Method of Monitoring Liquid Flow Rate:	Flow Control Valve
Minimum Operating Gas Flow Rate (acfm):	
Maximum Operating Gas Flow Rate (acfm):	15.00
Method of Monitoring Gas Flow Rate:	
Minimum Operating Pressure Drop (in. H20):	
Maximum Operating Pressure Drop (in. H20):	
Method of Monitoring Pressure Drop:	
Relative Direction of the Gas-Liquid Flow:	Other
Description:	Opposite
Height of Packed Section (ft):	10
Type of Packing Material:	Polypropoline
Size of Packing Material (in):	0.62
Tower Diameter (ft):	1.00
Total Tower Height (ft):	14.50
Maximum Operating Temperature of the Inlet Gas (°F):	
Maximum Operating Temperature of the Exhuast Gas(°F):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	None
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?

○ Yes ● No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD3802 (Flare)
Print Date: 6/13/2022

Make:	ABUTEC
Manufacturer:	ABUTEC
Model:	HTF 5.0
Type:	Enclosed
Minimum Residence Time (sec):	
Maximum Rated Gross Heat Input (MMBtu/hr):	17.00
Auxilliary Fuel:	
Description:	
Method of Pilot Flame Monitoring:	None
Monitoring Location:	Remote
Automatic Gas Shutoff After Loss of Flame?	(●) Yes ( ) No
Automatic Reignition After Loss of Flame?	( ) Yes (●) No
Minimum Gas Flow Rate (acfm):	410.0
Minimum Operating Temperature (ºF):	1,500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	
Flare Operation Type:	Continuous
Does Flare have smokeless design?	(●) Yes ( ) No
Is Flare equipped with flame retainer?	(●) Yes ( ) No
Is Flare equipped with flame arrestor?	(●) Yes ( ) No
Is Flare equipped with LEL monitor?	( ) Yes (●) No
Flare Stack Diameter (inches):	54.00
Lower Heat Content of source gas (BTU/scf):	400
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficency (%):	99.90
How was Efficency determined?	Design specification
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	5
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Pressure monitor set at 4.5 in. W.C. sot start up.
Have you attached data from recent performance testing?	( ) Yes (●) No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	(●) Yes ( ) No

● Yes ○ No

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

● Yes ○ No

Comments:

The flare automatically starts when there is a minimum pressure of 4.5 in. W.C. and shuts off at 2.0 in W.C.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4001 (Adsorber)
Print Date: 6/13/2022

Make:	Packed Dual Bed Vertical FRP Adsorber (FRP Vesse
Manufacturer:	Calgon
Model:	OCU8D
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	6000
Maximum Temperature of Vapor Stream to Adsorber (°F):	120
Minimum Temperature of Vapor Stream to Adsorber (°F):	5
Minimum Moisture Content of Vapor Stream to Adsorber (%):	20
Type of Adsorbant:	Activated Carbon
Bed Height:	3
Bed Length:	
Bed Width:	
Units:	Feet
Other Bed Dimension:	Diameter
Value:	8
Units:	Feet
Minimum Pressure Drop Across Adsorbant (in. H20):	3
Maximum Pressure Drop Across Adsorber (in. H20):	8
Total Weight of Adsorbant (lbs):	10800
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	Parallel

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☑
Sampling Frequency:	monthly
Sampling Device:	Jerome Meter
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	
Method of Regeneration:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4001 (Adsorber)
Print Date: 6/13/2022

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources): 13

Alternative Method to Demonstrate Control Apparatus is Operating Properly:

Have you attached data from recent performance testing? ◯ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus? ◯ Yes ● No

Have you attached a diagram showing the location and/or configuration of this control apparatus? ◯ Yes ● No

Comments: This system consists of 2 identical carbon adsorber units.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4201 (Adsorber)
Print Date: 6/13/2022

Make:	Packed Single Bed Vertical FRP Carbon Adsorber
Manufacturer:	Calgon
Model:	OCU6S
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	2000
Maximum Temperature of Vapor Stream to Adsorber (°F):	120
Minimum Temperature of Vapor Stream to Adsorber (°F):	5
Minimum Moisture Content of Vapor Stream to Adsorber (%):	20
Type of Adsorbant:	Activated Carbon
Bed Height:	3
Bed Length:	
Bed Width:	
Units:	Feet
Other Bed Dimension:	Diameter
Value:	6
Units:	Feet
Minimum Pressure Drop Across Adsorbant (in. H20):	2
Maximum Pressure Drop Across Adsorber (in. H20):	6
Total Weight of Adsorbant (lbs):	3150
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	Single
Method of Determining Breakthrough (check all that apply):	
Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☑
Sampling Frequency:	monthly
Sampling Device:	Jerome Meter
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	
Method of Regeneration:	

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4201 (Adsorber)
Print Date: 6/13/2022

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources): 5

Alternative Method to Demonstrate Control Apparatus is Operating Properly:

Have you attached data from recent performance testing? ◯ Yes ● No

Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus? ◯ Yes ● No

Have you attached a diagram showing the location and/or configuration of this control apparatus? ◯ Yes ● No

Comments:

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4301 (Oxidizer (Catalytic))
Print Date: 6/13/2022

Make:	
Manufacturer:	Prototech Inc.
Model:	
Minimum Inlet Temperature (°F):	850
Maximum Inlet Temperature (°F)	887
Minimum Outlet Temperature (°F)	850
Maximum Outlet Temperature (°F):	887
Minimum Residence Time (sec)	21
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Minimum Pressure Drop Across Catalyst (psi):	5
Maximum Pressure Drop Across Catalyst (psi):	4
Catalyst Material:	
Form of Catalyst:	
Description:	
Minimum Expected Life of Catalyst:	
Units:	
Volume of Catalyst (ft^3):	3.57
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	54.5 % removal of NMEHC and 88.1 % removal of CO.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4302 (Oxidizer (Catalytic))
Print Date: 6/13/2022

Make:	
Manufacturer:	Prototech Inc.
Model:	
Minimum Inlet Temperature (°F):	850
Maximum Inlet Temperature (°F)	887
Minimum Outlet Temperature (°F)	850
Maximum Outlet Temperature (°F):	887
Minimum Residence Time (sec)	21
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Minimum Pressure Drop Across Catalyst (psi):	5
Maximum Pressure Drop Across Catalyst (psi):	4
Catalyst Material:	
Form of Catalyst:	
Description:	
Minimum Expected Life of Catalyst:	
Units:	
Volume of Catalyst (ft^3):	3.57
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	54.5 % removal of NMEHC and 88.1 % removal of CO.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4303 (Oxidizer (Catalytic))
Print Date: 6/13/2022

Make:	
Manufacturer:	Prototech Inc.
Model:	
Minimum Inlet Temperature (°F):	850
Maximum Inlet Temperature (°F)	887
Minimum Outlet Temperature (°F)	850
Maximum Outlet Temperature (°F):	887
Minimum Residence Time (sec)	21
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Minimum Pressure Drop Across Catalyst (psi):	5
Maximum Pressure Drop Across Catalyst (psi):	4
Catalyst Material:	
Form of Catalyst:	
Description:	
Minimum Expected Life of Catalyst:	
Units:	
Volume of Catalyst (ft^3):	3.57
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	83.3 % removal of NMEHC and 96.7 % removal of CO, and 95% of H2CO.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4401 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4401 (Particulate Filter (Other))
Print Date: 6/13/2022

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4402 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhaust Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4402 (Particulate Filter (Other))
Print Date: 6/13/2022

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4403 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4403 (Particulate Filter (Other))
Print Date: 6/13/2022

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4404 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4404 (Particulate Filter (Other))
Print Date: 6/13/2022

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4405 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4405 (Particulate Filter (Other))
Print Date: 6/13/2022

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4406 (Particulate Filter (Other))
Print Date: 6/13/2022

Make:	AFT
Manufacturer:	AMERICAN FILTER TECHNOLOGIES
Model:	DFT
Filter Description:	0.5 MICRON FILTER SOCK
Total Filter Area (ft^2):	88.00
Maximum Design Temperature Capability (°F):	390.0
Maximum Design Air Flow Rate (acfm):	8.0
Maximum Air Flow Rate to Filter Area Ratio:	3.000
Minimum Operating Pressure Drop (in. H2O):	12.00
Maximum Operating Pressure Drop (in. H2O):	14.00
Maximum Inlet Temperature (°F):	100.0
Maximum Operating Exhuast Gas Flow Rate (acfm):	200.0
Method for Determining When Filter Replacement is Required:	FILTER SOCKS ARE CHANGED ONCE PER YEAR. IT MAY BE CHANGED WHEN EFFICIENCY IS REDUCED TO LESS THAN 99
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	○ Yes ● No
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	same exact type of filter as CD3701.

02620 BERGEN CNTY UTIL AUTH WTP BOP190001 CD4406 (Particulate Filter (Other))
Print Date: 6/13/2022

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT601	HW Heater 1	Hot Water Heater #1 (Pump Building 1)	Round	24	36	250	350.0	315.0	350.0	2,850.0	2,700.0	3,000.0	Up	
PT602	HW Heater 2	Hot Water Heater #2 (Pump Building)	Round	24	36	250	350.0	315.0	350.0	2,850.0	2,700.0	3,000.0	Up	
PT605	B-1 Boiler	B-1 Warehouse Boiler	Round	20	33	200	435.0	405.0	450.0	720.0	688.0	764.0	Up	
PT801	Generator 2	Standby Turbo Generator #2	Round	68	19	200	1,034.0	931.0	1,034.0		70,729.0	78,588.0	Up	
PT802	Generator 3	Standby Turbo Generator #3	Round	68	19	200	1,034.0	931.0	1,034.0		70,729.0	78,588.0	Up	
PT803	Generator 4	Standby Turbo Generator #4	Round	68	19	200	1,034.0	931.0	1,034.0		70,729.0	78,588.0	Up	
PT1308	V Flare 1	Varec Flare	Round	78	28	200	750.0	500.0	1,000.0	3,400.0	2,700.0	4,100.0	Up	
PT1309	V Flare 2	Varec Flare	Round	78	28	200	750.0	500.0	1,000.0	3,400.0	2,700.0	4,100.0	Up	
PT1401	Gas Tank	Gas Tank	Round	3	5	320	70.0	60.0	90.0		19.0	21.0	Up	
PT1801	Dewater	Sludge dewatering facility boiler room	Round	24	41	350	463.0	81.0	90.0		1,220.0	1,356.0	Up	
PT3601	SB TK Vent 1	Sodium bisulfide tank #1, A side	Round	2	27	250	72.0	50.0	95.0	15.0	15.0	15.0	Up	
PT3602	SB TK Vent 2	Sodium bisulfide tank #2, A side	Round	2	27	250	72.0	50.0	95.0	15.0	15.0	15.0	Up	
PT3603	SB TK Vent 3	Sodium bisulfide tank #3, C side	Round	2	27	650	72.0	50.0	95.0	15.0	15.0	15.0	Up	
PT3604	SB TK Vent 4	Sodium bisulfide tank #4, C side	Round	2	27	650	72.0	50.0	95.0	15.0	15.0	15.0	Up	
PT3802	sludge tk#2	Dewatered sludge holding tank#1	Round	30	53	200	1,800.0	1,500.0	2,100.0	27,150.0	23,500.0	30,800.0	Up	
PT4001	PT4001	Digested Sludge Thickening/ Dewatering Control Point 1	Round	24	23	320	80.0	50.0	110.0	6,000.0	5,400.0	6,600.0	Up	

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT4002	PT4002	Digested Sludge Thickening/ Dewatering Control Point 2	Round	24	23	320	80.0	50.0	110.0	6,000.0	5,400.0	6,600.0	Up	
PT4101	PT4101	Digested Sludge Thickening/ Dewatering Polymer Feed System Exhaust	Square	54	35	288	70.0	60.0	90.0	30,000.0	30,000.0	30,000.0	Up	
PT4201	PT4201	Waste Activated Sludge (WAS) Thickening Control Point 1	Round	15	15	830	80.0	50.0	110.0	2,000.0	1,800.0	2,200.0	Up	
PT4301	Engine #1	Cogeneration Engine #1	Round	18	35	150	887.0	850.0	900.0	10,650.0	10,600.0	10,700.0	Up	
PT4302	Engine #2	Cogeneration Engine #2	Round	18	35	150	887.0	850.0	900.0	10,650.0	10,600.0	10,700.0	Up	
PT4303	Engine #3	Cogeneration Engine #3	Round	20	43	450	887.0	850.0	900.0	10,650.0	10,600.0	10,700.0	Up	
PT4401	Carb. unl. 2	Carbon unloading from conveyor into vessel 1	Round	6	3	200	68.0	50.0	100.0	75.0	50.0	200.0	Down	
PT4402	Carb. unl. 2	Carbon unloading from conveyor into vessel 2	Round	6	3	200	68.0	50.0	100.0	75.0	50.0	200.0	Down	
PT4403	Carb. unl. 3	Carbon unloading from conveyor into vessel 3	Round	6	3	200	68.0	50.0	100.0	75.0	50.0	200.0	Down	
PT4404	Carbon load	Carbon loading into hopper	Surface	24	3	200	68.0	-8.0	105.0	0.0	0.0	0.0	Horizontal	
PT4405	Carb. unl. 4	Carbon unloading from conveyor into vessel 4	Round	6	3	200	68.0	-8.0	100.0	75.0	50.0	200.0	Down	
PT4406	Carb. unl. 5	Carbon unloading from conveyor into vessel 5	Round	6	3	200	68.0	50.0	100.0	75.0	50.0	200.0	Down	
PT4407	Carb. unl. 5	Carbon unloading from conveyor into vessel 6	Round	6	3	200	68.0	50.0	100.0	75.0	50.0	200.0	Down	
PT4408	Carbon load	Carbon loading into hopper	Surface	6	3	200	68.0	-8.0	105.0	0.0	0.0	0.0	Horizontal	
PT4501	Const. Eng.	Portable Construction Engine	Round	2	3	200	300.0	300.0	300.0	800.0	1,000.0	1,000.0	Horizontal	

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT4601	Boiler ADM	Adminstrative Boiler	Round	4	25	100	420.0	405.0	450.0	720.0	688.0	764.0	Up	

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

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

U 6 HW Boilers Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ

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	HW #1 - Oil	Hot Water Heater E601, 20.9 MM Btu/hr firing #2 fuel oil - Pump building 1.	Normal - Steady State	E601		PT601	1-03-005-02	0.0	2,300.0		2,700.0	3,000.0	315.0	350.0
OS2	HW #1 D. Gas	Hot Water Heater E601, 20.9 MM Btu/hr firing Digester Gas - Pump building 1.	Normal - Steady State	E601		PT601	1-03-007-01	0.0	2,800.0		2,700.0	3,000.0	315.0	350.0
OS3	HW #1 - NG	Hot Water Heater E601, 20.9 MM Btu/hr firing Natural Gas - Pump building 1.	Normal - Steady State	E601		PT601	1-03-006-02	0.0	4,800.0		2,700.0	3,000.0	315.0	350.0
OS4	HW #2 - Oil	Hot Water Heater E602, 20.9 MM Btu/hr firing #2 fuel oil - Pump building 2.	Normal - Steady State	E602		PT602	1-03-005-02	0.0	2,300.0		2,700.0	3,000.0	315.0	350.0
OS5	HW #2 D. Gas	Hot Water Heater E602, 20.9 MM Btu/hr firing Digester Gas - Pump building 2.	Normal - Steady State	E602		PT602	1-03-007-01	0.0	2,800.0		2,700.0	3,000.0	0.0	350.0
OS6	HW #2 NG	Hot Water Heater E602, 20.9 MM Btu/hr firing Natural Gas - Pump building 2.	Normal - Steady State	E602		PT602	1-03-006-02	0.0	4,800.0		2,700.0	3,000.0	0.0	350.0
OS13	B-1 OIL	B-1 Warehouse Boiler, 3.99 MM Btu/hr firing #2 Fuel Oil (6500 hrs/yr)-	Normal - Steady State	E605		PT605	1-03-005-01	0.0	6,500.0		688.0	764.0	0.0	450.0
OS14	B-1 D. Gas	B-1 Warehouse Boiler, 3.99 MM Btu/hr firing Digester Gas (6500 hrs/yr).	Normal - Steady State	E605		PT605	1-03-007-01	0.0	6,500.0		688.0	764.0	0.0	450.0

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

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

U 6 HW Boilers Hot Water Boilers #1(E601), #2 (E602), each 20.90 MMBtu/hr, and B-1 (Warehouse Boiler), 3.99 MMBtu/hr, Subject to MACT JJJJJJ

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS15	B-1 NG	B-1 Warehouse Boiler, 3.99 MM Btu/hr firing Natural Gas (6500 hrs/yr).	Normal - Steady State	E605		PT605	1-03-006-03	0.0	6,500.0		688.0	764.0	0.0	450.0

U 8 Emerg Gens Three (3) Emergency Simple Cycle Turbines (E801, E802 & E803), each 38.9 MM Btu/hr, Kerosene fired

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Gen 2	Emergency Use Only - Gen 2 (E801)	Standby	E801		PT801	2-03-001-01	0.0	100.0		0.0	78,588.0	931.0	1,034.0
OS2	Gen 3	Emergency Use Only - Gen 3 (E802)	Standby	E802		PT802	2-03-001-01	0.0	100.0		0.0	78,588.0	931.0	1,034.0
OS3	Gen 4	Emergency Use Only - Gen 4 (E803)	Standby	E803		PT803	2-03-001-01	0.0	100.0		0.0	78,588.0	931.0	1,034.0

BERGEN CNTY UTIL AUTH WTP (02620)
BOP190001

Date: 6/13/2022

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

U 13 Digesters Anaerobic Sludge Digesters (E1301-E1305) with two (2) Enclosed Flares (CD1308 and CD1309)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Flare1-1	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1308	Normal - Steady State	E1301	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS2	Flare1-2	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1309	Normal - Steady State	E1301	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS3	Flare2-1	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1308	Normal - Steady State	E1302	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS4	Flare2-2	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1309	Normal - Steady State	E1302	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS5	Flare3-1	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1308	Normal - Steady State	E1303	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS6	Flare3-2	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1309	Normal - Steady State	E1303	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS7	Flare4-1	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1308	Normal - Steady State	E1304	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS8	Flare4-2	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1309	Normal - Steady State	E1304	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0

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

U 13 Digesters Anaerobic Sludge Digesters (E1301-E1305) with two (2) Enclosed Flares (CD1308 and CD1309)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS9	Flare5-1	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1308.	Normal - Steady State	E1305	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0
OS10	Flare5-2	Waste gas from digesters and biogas storage tanks flared off to atmosphere w/ CD1307.	Normal - Steady State	E1305	CD1308 (P) CD1309 (P)	PT1308 PT1309	5-01-004-10	0.0	8,760.0		2,700.0	4,100.0	500.0	1,000.0

U 14 Gas Tank 10,000 Gal Gasoline Underground Storage Tank

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Gas Tank	10,000 Gallon submerged gasoline storage tank. 4 turnovers per annum.	Normal - Steady State	E1401		PT1401		0.0	8,760.0		19.0	21.0	60.0	90.0

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

U 18 Blrs - Dewtr Three (3) boilers (E1801, E1802, E1803), each < 5 MMBtu/hr, Natural Gas, at Sludge Dewatering Facility Boiler Room

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	SD Boiler#1	Boilers used in heating water supplied to sludge dewatering building.	Normal - Steady State	E1801		PT1801	1-03-006-02	0.0	8,760.0		1,220.0	1,356.0	81.0	90.0
OS2	SD Boiler#2	Boilers used in heating water supplied to sludge dewatering building.	Normal - Steady State	E1802		PT1801	1-03-006-02	0.0	8,760.0		1,220.0	1,356.0	81.0	90.0
OS3	SD Boiler#3	Boilers used in heating water supplied to sludge dewatering building.	Normal - Steady State	E1803		PT1801	1-03-006-02	0.0	8,760.0		1,220.0	1,356.0	81.0	90.0

U 36 SB Tanks 1-4 Four (4) 8,000 gallon Sodium Bisulfite Storage Tanks (E3601, E3602, E3603, E3604) controlled by Packed Tower Scrubbers

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	Vent No. 1	Sodium Bisulfite Tank #1 venting to Scrubber Vent No. 1	Normal - Steady State	E3601	CD3601 (P)	PT3601	4-03-011-97	8,760.0	8,760.0		15.0	15.0	50.0	95.0
OS2	Vent No. 2	Sodium Bisulfite Tank No. 2 venting to Scrubber Vent No. 2	Normal - Steady State	E3602	CD3602 (P)	PT3602	4-03-011-97	8,760.0	8,760.0		15.0	15.0	50.0	95.0
OS3	Vent No. 3	Sodium Bisulfite Tank No. 3 venting to Scrubber Vent No. 3	Normal - Steady State	E3603	CD3603 (P)	PT3603	4-03-011-97	8,760.0	8,760.0		15.0	15.0	50.0	95.0

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

U 36 SB Tanks 1-4 Four (4) 8,000 gallon Sodium Bisulfite Storage Tanks (E3601, E3602, E3603, E3604) controlled by Packed Tower Scrubbers

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS4	Vent No. 4	Sodium Bisulfite Tank No. 4 venting to Scrubber Vent No. 4	Normal - Steady State	E3604	CD3604 (P)	PT3604	4-03-011-97	8,760.0	8,760.0		15.0	15.0	50.0	95.0

U 38 sludge tanks Two (2) Dewatered Sludge Holding Tanks (E3801, E3802) >100,000 gal capacity each, controlled by Enclosed Flare (CD3802)

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	Sludge tk#1	Dewatered Sludge Holding Tank#1 (E3801)	Normal - Steady State	E3801	CD3802 (P)	PT3802	3-99-999-89	0.0	8,760.0		23,500.0	30,800.0	1,500.0	2,100.0
OS2	Sludge tk#2	Dewatered Sludge Holding Tank#2 (E3802)	Normal - Steady State	E3802	CD3802 (P)	PT3802	3-99-999-89	0.0	8,760.0		23,500.0	30,800.0	1,500.0	2,100.0

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

U 40 DS Thck dwtg Digested Sludge Thickening/ Dewatering (E4001 - E4013) controlled by Carbon Adsorber System (CD4001)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	OS1	Wet Well North	Normal - Steady State	E4001	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS2	OS2	Wet Well South	Normal - Steady State	E4002	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS3	OS3	Gravity Belt Thickener/ Belt Filter Press No. 1 & Hopper (GBT Mode)	Normal - Steady State	E4003	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS4	OS4	Gravity Belt Thickener/ Belt Filter Press No. 1 & Hopper (BFP Mode)	Normal - Steady State	E4003	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS5	OS5	Gravity Belt Thickener/ Belt Filter Press No. 2 & Hopper (GBT Mode)	Normal - Steady State	E4004	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS6	OS6	Gravity Belt Thickener/ Belt Filter Press No. 2 & Hopper (BFP Mode)	Normal - Steady State	E4004	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS7	OS7	Gravity Belt Thickener/ Belt Filter Press No. 3 & Hopper (GBT Mode)	Normal - Steady State	E4005	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS8	OS8	Gravity Belt Thickener/ Belt Filter Press No. 3 & Hopper (BFP Mode)	Normal - Steady State	E4005	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS9	OS9	Gravity Belt Thickener/ Belt Filter Press No. 4 & Hopper (GBT Mode)	Normal - Steady State	E4006	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS10	OS10	Gravity Belt Thickener/ Belt Filter Press No. 4 & Hopper (BFP Mode)	Normal - Steady State	E4006	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS11	OS11	Belt Filter Press No. 1	Normal - Steady State	E4007	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0

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

U 40 DS Thck dwtg Digested Sludge Thickening/ Dewatering (E4001 - E4013) controlled by Carbon Adsorber System (CD4001)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS12	OS12	Screw Conveyor No. 1	Normal - Steady State	E4008	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS13	OS13	Screw Conveyor No. 2	Normal - Steady State	E4009	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS14	OS14	Screw Conveyor No. 3	Normal - Steady State	E4010	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS15	OS15	Screw Conveyor No. 4	Normal - Steady State	E4011	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS16	OS16	Sludge Cake Container No. 1	Normal - Steady State	E4012	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0
OS17	OS17	Sludge Cake Container No. 2	Normal - Steady State	E4013	CD4001 (P)	PT4001 PT4002		4,160.0	8,760.0		830.0	1,015.0	50.0	110.0

U 41 DS Thck PLM Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	OS1	Screw Feeder No. 1 (E4101)	Normal - Steady State	E4101		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0
OS2	OS2	Mix Tank No. 1A (E4102)	Normal - Steady State	E4102		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0

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U 41 DS Thck PLM Digested Sludge Thickening/ Dewatering Polymer Feed System (E4101 - E4106)

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.
OS3	OS3	Mix Tank No. 1B (E4103)	Normal - Steady State	E4103		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0
OS4	OS4	Screw Feeder No. 2 (E4104)	Normal - Steady State	E4104		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0
OS5	OS5	Mix Tank No. 2A (E4105)	Normal - Steady State	E4105		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0
OS6	OS6	Mix Tank No. 2B (E4106)	Normal - Steady State	E4106		PT4101		4,160.0	8,760.0		0.0	5,000.0	60.0	90.0

U 42 WAS thickeng Waste Activated Sludge (WAS) Thickening (E4201 - E4205)

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	OS1	WAS Wet Well - North	Normal - Steady State	E4201	CD4201 (P)	PT4201		4,160.0	8,760.0		360.0	440.0	50.0	110.0
OS2	OS2	WAS Wet Well - South	Normal - Steady State	E4202	CD4201 (P)	PT4201		4,160.0	8,760.0		360.0	440.0	50.0	110.0
OS3	OS3	Gravity Belt Thickener & Hopper No. 1	Normal - Steady State	E4203	CD4201 (P)	PT4201		4,160.0	8,760.0		360.0	440.0	50.0	110.0
OS4	OS4	Gravity Belt Thickener & Hopper No. 2	Normal - Steady State	E4204	CD4201 (P)	PT4201		4,160.0	8,760.0		360.0	440.0	50.0	110.0

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Emission Unit/Batch Process Inventory

U 42 WAS thickeng Waste Activated Sludge (WAS) Thickening (E4201 - E4205)

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS5	OS5	Gravity Belt Thickener & Hopper No. 3	Normal - Steady State	E4205	CD4201 (P)	PT4201		4,160.0	8,760.0		360.0	440.0	50.0	110.0

U 43 Cogen Unit Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	NG1	Cogen #1 Running on Natural Gas	Normal - Steady State	E4301	CD4301 (P)	PT4301	2-01-002-02 2-03-002-04	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS2	DG1	Cogen #1 Running on Digester Gas	Normal - Steady State	E4301	CD4301 (P)	PT4301	2-01-007-02 2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS3	MG1	Cogen #1 Running on Natural and Digester Gas Mixture	Normal - Steady State	E4301	CD4301 (P)	PT4301	2-01-007-02 2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS4	NG2	Cogen #2 Running on Natural Gas	Normal - Steady State	E4302	CD4302 (P)	PT4302	2-01-002-02 2-03-002-04	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS5	DG2	Cogen #2 Running on Digester Gas	Normal - Steady State	E4302	CD4302 (P)	PT4302	2-01-007-02 2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS6	MG2	Cogen #2 Running on Natural and Digester Gas Mixture	Normal - Steady State	E4302	CD4302 (P)	PT4302	2-01-007-02 2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0

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Emission Unit/Batch Process Inventory

U 43 Cogen Unit Cogeneration Engines #1, #2 and #3, 13.71 MMBtu/hr, 4-Stroke, Lean Burn, Subject to NSPS JJJJ

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS7	NG3	Cogen #3 Running on Natural Gas	Normal - Steady State	E4303	CD4303 (P)	PT4303	2-01-002-02 2-03-002-04	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS8	DG3	Cogen #3 Running on Digester Gas, Subject to NSPS Subpart JJJJ	Normal - Steady State	E4303	CD4303 (P)	PT4303	2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0
OS9	MG3	Cogen #3 Running on Natural and Digester Gas Mixture, Subject to NSPS Subpart JJJJ	Normal - Steady State	E4303	CD4303 (P)	PT4303	2-03-007-02	0.0	8,760.0		10,600.0	10,700.0	850.0	900.0

U 44 Cogen Carb Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS1	Carb Trans 1	Carbon Loading and Spent Carbon Unloading 1	Normal - Steady State	E4401	CD4401 (P)	PT4401	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0
OS2	Carb Trans 2	Carbon Loading and Spent Carbon Unloading 2	Normal - Steady State	E4402	CD4402 (P)	PT4402	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0
OS3	Carb Trans 3	Carbon Loading and Spent Carbon Unloading 3	Normal - Steady State	E4403	CD4403 (P)	PT4403	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0
OS4	Hopper	Hopper Normal Operation	Normal - Steady State	E4404		PT4404	5-02-800-01	3.0	12.0		0.0	0.0	-8.0	105.0
OS5	Carb Trans 4	Carbon Loading and Spent Carbon Unloading 4	Normal - Steady State	E4405	CD4404 (P)	PT4405	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0

BERGEN CNTY UTIL AUTH WTP (02620)
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Date: 6/13/2022

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

U 44 Cogen Carb Carbon Loading system for cleansing Digester Gas used as fuel for Cogeneration Unit

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.
OS6	Carb Trans 5	Carbon Loading and Spent Carbon Unloading 5	Normal - Steady State	E4406	CD4405 (P)	PT4406	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0
OS7	Carb Trans 6	Carbon Loading and Spent Carbon Unloading 6	Normal - Steady State	E4407	CD4406 (P)	PT4407	5-02-800-01	3.0	12.0		50.0	200.0	50.0	100.0
OS8	Hopper 2	Hopper Normal Operation	Normal - Steady State	E4408		PT4408	5-02-800-01	3.0	12.0		0.0	0.0	-8.0	105.0

U 45 Const. Eng. Construction Engine (E4501), 10.39 MMBtu/hr, Diesel fired

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	Const. Eng.	Construction Engine	Normal - Steady State	E4501		PT4501	2-01-001-02	0.0	275.0		1,000.0	1,000.0	300.0	300.0

BERGEN CNTY UTIL AUTH WTP (02620)
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New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

U 46 Boiler ADM Non-Utility Boiler (E4601), 1.46 MMBtu/hr, #2 fuel & Natural Gas fired, at Administration Building, Subject to MACT JJJJJJ

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 - FO	Administrative Building Boiler Burning No. 2 Fuel Oil, 1.46 MMBtu/hr, Non-Utility, Steam	Normal - Steady State	E4601		PT4601	1-03-005-01	0.0	8,760.0		688.0	764.0	405.0	450.0
OS2	Boiler - NG	Administrative Building Boiler Burning Natural Gas, 1.46 MMBtu/hr, Non-Utility, Steam	Normal - Steady State	E4601		PT4601	1-03-006-03	0.0	8,760.0		688.0	764.0	405.0	450.0

Date: 6/13/2022

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR1 U6 & U43 CAP

Members:

Type	ID	OS	Step
U	U 43	OS0 Summary	
U	U 6	OS0 Summary	

Formal Reason(s) for Group/Cap:

☑ Avoid being subject to the reqts of PSD

☑ Avoid being subject to the reqts of emis offsets

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

Boilers in U6 will operate under the terms of BOP050001 until the Cogen Unit is full Operation. Also, the combined total of emissions from both units shall not exceed the higher of the two rates.

Operating Circumstances: