



State of New Jersey

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

SHAWN M. LATOURETTE
Commissioner

Air Pollution Control Operating Permit Renewal with Significant Modification

Permit Activity Number: BOP180002

Program Interest Number: 41813

Mailing Address	Plant Location
HANIFA JOHNSON EXECUTIVE DIRECTOR JOINT MEETING OF ESSEX CNTY & UNION CNTY 500 S 1ST ST Elizabeth, NJ 07202	JOINT MEETING OF ESSEX & UNION CNTYS 500 S First St Elizabeth Union County

Initial Operating Permit Approval Date: **October 21, 2004**
Operating Permit Approval Date: **DRAFT**
Operating Permit Expiration Date: **To Be Determined**

AUTHORITY AND APPLICABILITY

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

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

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

PERMIT SHIELD

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

COMPLIANCE SCHEDULES

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

COMPLIANCE CERTIFICATIONS AND DEVIATION REPORTS

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

ACCESSING PERMITS

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

HELPLINE

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

RENEWING YOUR OPERATING PERMIT AND APPLICATION SHIELD

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

COMPLIANCE ASSURANCE MONITORING

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

ADMINISTRATIVE HEARING REQUEST

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

If you have any questions regarding this permit approval, please call Michael Mankbadi at (609)-633-2675.

Approved by:

David J. Owen

Enclosure

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

Facility Name: JOINT MEETING OF ESSEX & UNION CNTYS
Program Interest Number: 41813
Permit Activity Number: BOP180002

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Section A

Facility Name: JOINT MEETING OF ESSEX & UNION CNTYS

Program Interest Number: 41813

Permit Activity Number: BOP180002

POLLUTANT EMISSIONS SUMMARY

Table 1: Total emissions from all Significant Source Operations¹ 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} (total)	Pb	HAPs* (total)	CO ₂ e ²
Emission Units Summary	41.8	79.3	110	84.2	30.7	23.9	23.9	0.00234	8.70	
Batch Process Summary	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Group Summary	11.2	5.96	34.3	33.5	2.67	2.67	2.67	NA	NA	
Total Emissions	33.9	76.1	80.2	54.4	28.1	21.3	21.3	0.00234	8.70	159,676

Table 2: Estimate of total emissions from all Insignificant Source Operations¹ 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} (total)	Pb	HAPs (total)
Insignificant Source Operations	16.9	0.234	0.100	2.00	0.328	0.328	0.328	NA	13.1
Non-Source Fugitive Emissions	NA	NA	NA	NA	0.480	0.0900	0.0900	NA	NA

VOC: Volatile Organic Compounds

NO_x: Nitrogen Oxides

CO: Carbon Monoxide

SO₂: Sulfur Dioxide

N/A: Indicates the pollutant is not emitted or is emitted below the reporting threshold specified in N.J.A.C. 7:27-22, Appendix, Table A and N.J.A.C. 7:27-17.9(a).

TSP: Total Suspended Particulates

Other: Any other air contaminant

regulated under the Federal CAA

PM₁₀: Particulates under 10 microns

PM_{2.5}: Particulates under 2.5 microns

Pb: Lead

HAPs: Hazardous Air Pollutants

CO₂e: Carbon Dioxide equivalent

*Emissions of individual HAPs are provided in Table 3 on the next page.

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

¹ Significant Source Operations and Insignificant Source Operations are defined at N.J.A.C. 7:27-22.1.

² Total CO₂e emissions for the facility.

Section A

Facility Name: JOINT MEETING OF ESSEX & UNION CNTYS

Program Interest Number: 41813

Permit Activity Number: BOP180002

POLLUTANT EMISSIONS SUMMARY

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

HAP	TPY
Acrolein	0.311
Formaldehyde	3.10
Hydrogen Chloride	1.10
Phenol	0.393
Arsenic	0.0000104
Cadmium	0.0000575
Phosphorus	0.197
Hydrogen Sulfide	3.10

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

Other Air Contaminant	TPY
Methane	418

³ 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: JOINT MEETING OF ESSEX & UNION CNTYS

Program Interest Number: 41813

Permit Activity Number: BOP180002

GENERAL PROVISIONS AND AUTHORITIES

1. No permittee shall allow any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in a quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or which would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant that occurs only in areas over which the permittee has exclusive use or occupancy. Requirements relative only to nuisance situations, including odors, are not considered federally enforceable. [N.J.A.C. 7:27-22.16(g)8]
2. Any deviation from operating permit requirements which results in a release of air contaminants shall be reported to the Department as follows:
 - a. If the air contaminants are released in a quantity or concentration which poses a potential threat to public health, welfare or the environment or which might reasonably result in citizen complaints, the permittee shall report the release to the Department:
 - i. Immediately on the Department hotline at 1-(877) 927-6337, pursuant to N.J.S.A. 26:2C-19(e); and
 - ii. As part of the compliance certification required in N.J.A.C. 7:27-22.19(f). However, if the deviation is identified through source emissions testing, it shall be reported through the source emissions testing and monitoring procedures at N.J.A.C. 7:27-22.18(e)3; or
 - b. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, the permittee shall report the release to the Department as part of the compliance certification required in N.J.A.C. 7:27-22.19(f), except for deviations identified by source emissions testing reports, which shall be reported through the procedures at N.J.A.C. 7:27-22.18(e)3; or
 - c. If the air contaminants are released in a quantity or concentration which poses no potential threat to public health, welfare or the environment and which will not likely result in citizen complaints, and the permittee intends to assert the affirmative defense afforded by N.J.A.C. 7:27-22.16(l), the violation shall be reported by 5:00 PM of the second full calendar day following the occurrence, or of becoming aware of the occurrence, consistent with N.J.A.C. 7:27-22.16(l). [N.J.A.C. 7:27-22.19(g)1]
3. The permittee shall comply with all conditions of the operating permit including the approved compliance plan. Any non-compliance with a permit condition constitutes a violation of the New Jersey Air Pollution Control Act N.J.S.A. 26:2C-1 et seq., or the CAA, 42 U.S.C. §7401 et seq., or both, and is grounds for enforcement action; for termination, revocation and reissuance, or for modification of the operating permit; or for denial of an application for a renewal of the operating permit. [N.J.A.C. 7:27-22.16(g)1]
4. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of its operating permit. [N.J.A.C. 7:27-22.16(g)2]
5. This operating permit may be modified, terminated, or revoked for cause by the EPA pursuant to 40 CFR 70.7(g) and revoked or reopened and modified for cause by the Department pursuant to N.J.A.C. 7:27-22.25. [N.J.A.C. 7:27-22.16(g)3]

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

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

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

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

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

Section C

Facility Name: JOINT MEETING OF ESSEX & UNION CNTYS

Program Interest Number: 41813

Permit Activity Number: BOP180002

STATE-ONLY APPLICABLE REQUIREMENTS

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

STATE-ONLY APPLICABLE REQUIREMENTS

The following applicable requirements are not federally enforceable:

<u>SECTION</u>	<u>SUBJECT ITEM</u>	<u>ITEM #</u>	<u>REF. #</u>
B	---	1	---
B	---	10b	---
D	FC	---	3
D	FC	---	9
D	GR3	---	1

Section D

Facility Name: JOINT MEETING OF ESSEX & UNION CNTYS

Program Interest Number: 41813

Permit Activity Number: BOP180002

FACILITY SPECIFIC REQUIREMENTS AND INVENTORIES

FACILITY SPECIFIC REQUIREMENTS PAGE INDEX

Subject Item and Name

Page Number

Facility (FC):

FC

1

Insignificant Sources (IS):

IS NJID	IS Description	
IS4	Heat Recover Units firing Natural Gas [< 1 MMBtu/hr max. rated heat input]	7
IS7	Distillate Fuel Oil Tanks [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]	8
IS9	Water Treatment Equipment [<100 ppbw TXS and <3,500 ppbw VOC]	9
IS10	Two 10,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia]	10
IS11	Two 15,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia]	
IS19	Parts Cleaners [<6 ft^2, open top, <=100 gal capacity, >2 gal solvents, >5% VOC content]	12

Groups (GR):

GR NJID	GR Designation	GR Description	
GR1	HAP Emission	HAP Emission Cap Conditions	14
GR2	Flare Cap	Restriction on multiple flare operation	15
GR3	EJ	EJ Special Conditions	16

Emission Units (U):

U NJID	U Designation	U Description	
U1	Em Generator	10.46 MMBTU/hr NG Emergency Generator (boiler)	17
U2	Wst gas Brn	Sludge Digesters #1, 2, 3, & 4 controlled by flares	23
U3	Smth Blrs	Three 7.93 MMBTU/hr DG/FO boilers	28
U4	New WGB	Sludge Digesters and Sludge Storage Tanks Controlled by Flares	34
U12	Pugmills	Pugmills # 1 and # 2	42
U13	Sludge Tnks	Two 6,490 cu ft Liquid Sludge Storage Tanks	44
U16	Kwnee Blrs.	Two 5.23 MMBTU/hr NG/FO boilers	45
U18	Lime Eqp.	4600 cu ft Lime Storage Silo controlled by Baghouse CD3	50
U19	Cen Wetwell	731 gal/min centrate wetwell	53
U20	Centrifuges	Three Centrifuges cumulative 420 gal/min	55

U25	Dewatering	Dewatering Facility	57
U31	Dryer 2	Indirect 33.4 Dry Ton/day Sludge Dryer #2	59
U32	Dryer 3	Indirect 33.4 Dry Ton/day Sludge Dryer #3	59
U33	Dryer 1	Indirect 33.4 Dry Ton/day Sludge Dryer #1	59
U34	Prs wetwell	Process Drain Lift Station Wet Well	91
U37	Wst Gas Brn	Two Sludge Storage Tanks controlled by 12 MMBTU/hr Flare CD7	92
U40	Transfer Sta	500 lb/hr Sludge Transfer Station	98
U41	Pellet Sys	Pelletization System Controlled by Bahouses	100
U42	GBTs	Gravity Belt Thickener System	109
U43	Cogen	Six 9.3 MMBtu/hr RICE Engines	113
U44	P&O/New Lab	Two FO Emergency Generators	156

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: BOP **Number:** 180001

Description of Modifications: 5 Year Operating Permit Renewal with Significant Modification BOP200001 and Minor Modification BOP21000011

1. Two 8.3 MMBtu/hr engines firing natural gas (E4305, E4306) were added at U43:OS5, 6, 11, 12, 17 & 18.
2. GR2 requirements were moved to the individual units (U31, U32 and U33, 33.4 Dry Ton/day Dryers). A new emissions cap for the flares in U2, U4 and U37 was added.
3. A new configuration for the existing digesters (E3, E4, E5, E6) and tanks (E57, E58) was added in U4. Two new enclosed waste gas flares (CD4, CD5) were added.
5. Combustion adjustment requirements were added to the dryers in U31, U32, U33.
6. Fuel monitoring was added to U16, Two 5.23 MMBTU/hr NG/FO boilers.
7. A periodic monitoring procedure for NOx and CO was added to U43, Six 9.3 MMBtu/hr NG/DG RICE Engines.
8. N.J.A.C. 7:27-6.2(a) particulates emission limit was added to the digesters in U2 and U4.
9. PM-2.5 and PM-10 emission limits consistent with N.J.A.C. 7:27-22.
10. VOC emissions were corrected to below reporting threshold for the 7.93 MMBtu/hr DG boiler in U3:OS2.
11. Annual emissions rates were updated for all IS sources.
12. Monitoring requirements were added for the total production rate in the sludge digesters in U2:OS1-4, the material transfer limit for the sludge tanks in U37, the total throughput in the 4600 cu ft silo in U18.
13. Pressure monitoring requirements were added to the filters in CD3, CD8, CD9 & CD10.
14. Odor requirements were updated in the gravity belt thickener in U42 based on the latest guidance in NJDEP Technical Manual 1002.
15. SO2 emissions were updated for the 5.23 MMBTU/hr NG/FO boilers in U16, and the 7.93 MMBTU/hr DG/FO boilers in U3 based on new N.J.A.C. 7:27-9 regulations. SO2 was removed for U16:OS2,4 and U3:OS2,4 as below reporting threshold. U3 annual emissions were reduced from 33.4 tons/year to 17.0 tons/year. U16 annual emissions of 9.64 tons/year were removed.
16. VOC emissions were corrected for the 7.93 MMBTU/hr DG/FO boilers in U3: the annual VOC emissions limit of 0.210 tons/year was removed.
17. 10.46 MMBtu/hr NG emergency generator emission rates in U1 were updated based on new AP-42 emissions factors and 100 hours per year of testing and maintenance operation. VOC emissions were reduced from 0.0188 to 0.00290 tons/year, NOx emissions were reduced from 0.434 to 0.0513 tons/year, CO emissions were reduced from 0.269 to 0.0431 tons/year, TSP, PM-10 and PM-2.5 emissions were reduced from 0.0250 to 0.00390 tons/year.
18. Maximum hours for testing and maintenance for the emergency generators in U44, Two FO Emergency Generators, was corrected from 100 to 50 hours/year. Annual emissions limits were corrected.
19. 4 operating scenarios were added to the digesters in U2 to clarify the operation.
20. An NAICS was added.
21. Operating limits for engines 1-4 in U43 was reduced to combined total of 28,800 hours per (combined limit for both natural gas and digester gas). U43 maximum gross heat input was corrected from 8.3 MMBtu/hr to 9.3 MMBtu/hr per engine. Formaldehyde emissions from U43 was corrected from 0.190 lbs/hr to 0.140 lbs/hr per engine. TSP, PM-10 and PM-2.5 emissions rates were corrected from 0.104 lb/hr to 0.180 lb/hr. New HAPs

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emissions were added.

22. Stack parameters in the Emission Point Inventory were updated for the following stack points: Min. Temperature was updated for PT23, diameter, temperatures and volumes were updated for PT4301, PT4302, PT4303 and PT4304.

23. 40 CFR 63 Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines, and 40 CFR 60 Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines, requirements were added to the 9.3MMBTU/hr engines in U43.

24. Stack testing requirements for the 9.3MMBTU/hr engines in U43 were updated.

25. Methane emissions limits were added to the digesters in U2 and tanks in U37.

26. The sandblaster, U45, was removed.

27. Environmental Justice Special Conditions requiring a submittal were added at GR3.

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

Subject Item: FC

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

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**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.

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

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

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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]

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

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

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Facility Specific Requirements**

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

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Facility Specific Requirements**

Subject Item: IS4 Heat Recover Units firing Natural Gas [< 1 MMBtu/hr max. rated heat input]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.

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

Subject Item: IS7 Distillate Fuel Oil Tanks [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.
2	Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time it was stored in New Jersey may be used in New Jersey after the operative date of the applicable standard in Table 1B. [N.J.A.C. 7:27- 9.2(b)]	None.	None.	None.

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

Subject Item: IS9 Water Treatment Equipment [<100 ppbw TXS and <3,500 ppbw VOC]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	HAPs (Total) <= 13.1 tons/yr. Emissions of any individual HAP shall be less than 10 tons per year. [N.J.A.C. 7:27-22.16(a)]	HAPs (Total): Monitored by calculations semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year. Permittee shall calculate the emissions for each individual HAP and for total HAPs using the latest version of EPA's Water9 software and semiannual influent sampling results for priority pollutants. If the calculated emissions for total HAPs emissions totaled over any 2 consecutive six-month cycle exceeds 9 tons, the frequency of sampling and calculation shall be increased to quarterly beginning with the immediately following quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee may revert to semiannual sampling and calculations if the calculated HAPs emissions from 4 consecutive quarterly samples falls below 9 tons/year. . [N.J.A.C. 7:27-22.16(o)]	HAPs (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year or quarterly, if quarterly monitoring is triggered; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee shall record the calculated emissions for each individual HAP and for total HAPs and the sum of the total and individual HAP emissions for 2 consecutive semi-annual samplings (or 4 consecutive quarters, if quarterly monitoring is triggered). [N.J.A.C. 7:27-22.16(o)]	None.
2	Maximum concentration in the water of Group 1 TXS shall be less than 100 parts per billion by weight and the total concentration in the water of VOC and Group 2 TXS shall be less than 3,500 parts per billion by weight. [N.J.A.C. 7:27-22.16(a)]	Monitored by wastewater sampling semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year or quarterly, if quarterly monitoring of HAPs is triggered (see IS9 Ref#1). The permittee may resume semiannual sampling and calculations if the calculated HAPs emissions from 4 consecutive quarterly samples falls below 9 tons/year. [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 or quarterly, if quarterly monitoring of HAPs is triggered (see IS9 Ref#1); quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Subject Item: IS10 Two 10,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia], IS11 Two 15,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia]

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

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	The tank's potential to emit each TXS and each HAP shall not exceed the de minimis reporting thresholds as specified in N.J.A.C. 7:27-22, Appendix. [N.J.A.C. 7:27-22.1]	None.	None.	None.
9	The percentage by weight of all HAPs collectively in the raw material stored in the tank shall be less than 1.0 percent. [N.J.A.C. 7:27-22.1]	None.	None.	None.
10	The owner or operator shall have readily available upon Department request a statement certified in accordance with N.J.A.C. 7:27-1.39, signed by the responsible official, as defined at N.J.A.C. 7:27-1.4, that: (1) specifies the contents of the tank; (2) affirms that the tank meets the applicable requirements of IS10 above and (3) attests that the tank is in compliance with all other applicable State or federal air pollution requirements. [N.J.A.C. 7:27-22.1]	None.	None.	None.

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

Subject Item: IS19 Parts Cleaners [<6 ft², open top, <=100 gal capacity, >2 gal solvents, >5% VOC content]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	For a cold cleaning machine using 2 gallons or more of solvent containing greater than 5% VOC content by weight, no person shall add solvent to the machine, or cause, suffer, allow, or permit the machine to be operated, unless the machine has a permanent, conspicuous label placed in a prominent location on the machine setting forth the applicable provisions of the operating permit. [N.J.A.C. 7:27-16.6(j)1ii]	None.	None.	None.
2	The permittee shall use a tightly fitting working-mode cover that completely covers the machine's opening and that shall be kept closed at all times except when parts are being placed into or being removed from the machine or when solvent is being added or removed. [N.J.A.C. 7:27-16.6(j)1iii]	Monitored by visual determination upon occurrence of event, based on an instantaneous determination. Monitoring shall occur for each period of inactive use of the machine. [N.J.A.C. 7:27-22.16(o)]	None.	None.
3	Parts being cleaned shall be drained for at least 15 seconds or until the dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts shall be positioned so that solvent drains directly back into the machine. [N.J.A.C. 7:27-16.6(j)2iii]	None.	None.	None.
4	Spills during solvent transfer and use of the machine shall be cleaned up immediately, and the wipe rags or other sorbent material used shall be immediately stored in covered containers for disposal or recycling. [N.J.A.C. 7:27-16.6(j)2vii]	None.	None.	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	A person shall not use, in a cold cleaning machine, any solvent that has a vapor pressure of 1 mm Hg or greater, measured at 20 Degrees C (68 Degrees F). [N.J.A.C. 7:27-16.6(j)3]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Maintain records: (i) The name and address of the person selling the solvent; (ii) A list of the VOC(s) and their concentration information in the solvent; (iii) The information about each VOC; (iv) The solvents product number assigned by the manufacturer; and (v) the vapor pressure of the solvent in mmHg (@ 20 Degrees C). [N.J.A.C. 7:27-16.6(j)4]	None.
6	The owner or operator of a cold cleaning machine or a heated cleaning machine shall maintain, for not less than two years after the date of purchase of solvent, the information pertaining to the solvent as specified in N.J.A.C. 7:27-16.6(j)4i through 4v, and shall, upon the request of the Department, provide the information to the Department. [N.J.A.C. 7:27-16.6(j)4]	None.	None.	None.

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Facility Specific Requirements**

Subject Item: GR1 Facility-wide HAP Cap

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Facility-wide emissions of any individual HAP shall be less than 10 tons per year. Facility-wide total HAP emissions shall be less than 25 tons per year. These limits include non-source fugitive HAP emissions, HAPs emitted by insignificant sources and individual HAPs that are below the reporting threshold indicated in 7:27-17. [N.J.A.C. 7:27-22.16(a)]	Monitored by calculations semiannually: once every six months; six month cycle shall begin on January 1 and July 1 of each year or quarterly, if quarterly monitoring of HAPs is triggered (see IS9 Ref#1). The permittee may resume semiannual calculations if the calculated HAPs emissions from 4 consecutive quarterly samples falls below 9 tons/year. [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 or quarterly, if quarterly monitoring of HAPs is triggered (see IS9 Ref#1); quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)]	None.

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Subject Item: GR2 Restriction on multiple flare operation

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	U2 and U37 must be decommissioned before U4 begins operation. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	VOC (Total) <= 11.2 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	NOx (Total) <= 5.96 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	CO <= 34.3 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 33.5 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 2.67 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 2.67 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-2.5 (Total) <= 2.67 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Methane <= 17 tons/yr based on worst case emissions from U2, U4 and U37. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Subject Item: GR3 EJ Special Conditions

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	<p>Within twelve (12) months after approval of BOP180002, the facility must submit to the Department an evaluation of the following emission reduction measures:</p> <ol style="list-style-type: none"> 1.Switching from fossil fuels combustion to sustainably produced hydrogen or other technically feasible carbon-free technology; 2.Installing the largest feasible solar power system at the facility; 3.Installing the maximum feasible energy storage capacity at the facility; and 4.Any other measure that reduces or eliminates fossil fuel combustion and greenhouse gas emissions from the facility. <p>Permittee shall implement all feasible measures in accordance with a compliance schedule issued by the Department after assessment of the evaluation.</p> <p>The Permittee shall post a copy of the evaluation, and any progress reports under the compliance schedule, on its website upon submittal to the Department.</p> <p>N.J.A.C. 7:27-22.16(a) and</p> <p>[N.J.A.C. 7:27-22.3(jj)]</p>	None.	None.	None.

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

Emission Unit: U1 10.46 MMBTU/hr NG Emergency Generator (boiler)**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 <= 6.09 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
3	Generator fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only:</p> <p>1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1]</p>	<p>Monitored by hour/time monitor continuously.</p> <p>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</p> <p>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).</p> <p>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul style="list-style-type: none"> 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 <p>3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</p>	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>This emergency generator shall not be used:</p> <p>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at 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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Hours of Operation <= 100 hr/yr for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information: For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator. [N.J.A.C. 7:27-19.11]	None.
7	Maximum Gross Heat Input <= 10.46 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
8	Boiler fuel limited to natural gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	VOC (Total) <= 0.0029 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	NOx (Total) <= 0.0513 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	CO <= 0.0431 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	TSP <= 0.0039 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-10 (Total) <= 0.0039 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
14	PM-2.5 (Total) <= 0.0039 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U1 10.46 MMBTU/hr NG Emergency Generator (boiler)

Operating Scenario: OS1 Emergency Generator (Boiler) (E1) firing natural gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.056 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	NOx (Total) <= 1.03 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	CO <= 0.86 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	TSP <= 0.078 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-10 (Total) <= 0.078 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-2.5 (Total) <= 0.078 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U2 Sludge Digesters #1, 2, 3, & 4 controlled by flares

Subject Item: CD1 WASTE GAS BURNER - DIGESTER BUILDING, CD2 WASTE GAS BURNER - DIGESTER BUILDING

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC Destruction and Capture Efficiency <= 95 %. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U2 Sludge Digesters #1, 2, 3, & 4 controlled by flares

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	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 longer than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)]& [N.J.A.C. 7:27- 6.2(e)]	Opacity: Monitored by visual determination daily, based on an instantaneous determination during flare operation, during daylight hours. Visual inspections shall consist of an instantaneous visual survey to identify if the stack has visible emission (other than water vapor) greater than the prescribed standard. If visible emissions are observed and the corrective action taken does not correct the opacity problem within 24 hours, the permittee shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such test shall be conducted each operating day until corrective action is taken to successfully correct the opacity problem. [N.J.A.C. 7:27-22.16(o)]	Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system daily during flare operation in a log book or computer records. The permittee shall maintain 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 actions taken if necessary; (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 <= 11.3 lb/hr. 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.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. [N.J.A.C. 7:27-16.13]	Other: The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. 1. Have been designed to reduce the concentration of VOC from the source operation by no less than 95 percent; 2. Have been installed in accordance with the specifications provided by the manufacturer of the flare; and 3. 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: The owner or operator of a flare subject to this section shall inspect the flare before May 1 of each year beginning in 1995 to verify that the flare continues to be operated in accordance with the manufacturer's specifications for the operation of the flare. The owner or operator of the flare shall record the following in a log book 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. 7:27-16.3(c)] & [N.J.A.C. 7:27-22.16(o)].	Submit a report: As per the approved schedule. The following information shall be submitted with any permit application for any flare to be installed. Such submittal shall be certified in accordance with N.J.A.C. 7:27-1.39. 1. The name of the owner and operator of the flare; 2. The make, model and serial number of the flare; 3. A copy of the manufacturer's specification of the performance standards for the flare; 4. A statement that the flare was installed in accordance with the manufacturer's specifications; 5. A statement that the flare is being operated and maintained in accordance with the manufacturer's specifications; and 6. A statement that the flare will continue to be operated in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-16.3(b)] & [N.J.A.C. 7:27-22.16(o)]
4	Heat content at burner tip (unassisted operation) ≥ 200 BTU/ft ³ [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Any excess digester gas (not burned in engines or boilers) shall be vented through flares CD1 or CD2. Only one flare may be operated at any one time. The flare that is in operation shall operate continuously. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Digester gas usage ≤ 124 MMft ³ per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	VOC (Total) <= 4.84 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	NOx (Total) <= 2.74 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	CO <= 14.9 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	SO2 <= 17.8 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP <= 1.14 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	PM-10 (Total) <= 1.06 tons/yr based on the total production rate and flare fuel usage. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-2.5 (Total) <= 1.06 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Methane <= 5.6 tons/yr based on the fuel usage limit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U2 Sludge Digesters #1, 2, 3, & 4 controlled by flares

Operating Scenario: OS1 Sludge Digester #1, OS2 Sludge Digester #2, OS3 Sludge Digester #3, OS4 Sludge Digester #4

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Production Rate <= 280,000 lb/day. Maximum material processing rate of sludge (total volatile solids) per day (total for four digesters). [N.J.A.C. 7:27-22.16(a)]	Total Production Rate: Monitored by calculations daily. [N.J.A.C. 7:27-22.16(o)]	Total Production Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system daily. [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) <= 2.2 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	NOx (Total) <= 1.26 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	CO <= 6.82 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	SO2 <= 8.14 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.52 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 0.484 lb/hr for all four digesters (OS1-4) combined. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-2.5 (Total) <= 0.484 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Methane <= 1.3 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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New Jersey Department of Environmental Protection Facility Specific Requirements

Emission Unit: U3 Three 7.93 MMBTU/hr DG/FO boilers

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	<p>The owner or operator of an industrial/commercial/institutional boiler or other indirect heat exchanger with a gross heat input of at least five million BTU per hour or more shall adjust the combustion process annually in the same quarter of each calendar year.</p> <p>If the source is not operated during the quarter of the calendar year in which the annual adjustment is to be performed, the owner or operator shall perform the adjustment within seven days after the boiler or other indirect heat exchanger is next operated.</p> <p>The adjustment of the combustion process shall be done in accordance with the procedure set forth at N.J.A.C. 7:27-19.16. [N.J.A.C. 7:27-16.8(b)], [N.J.A.C. 7:27-16.8(c)] and [N.J.A.C. 7:27-19.7(g)]</p>	<p>Monitored by periodic emission monitoring annually. The owner or operator shall perform the adjustment of the combustion process in accordance with the combustion adjustment monitoring procedures specified in NJDEP Technical Manual 1005 and the procedure at N.J.A.C. 7:27-19.16(a) as follows: 1. Inspect the burner, and clean or replace any components of the burner as necessary; 2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern consistent with the manufacturer's specifications; 3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly; 4. Minimize the total emissions of NO_x and CO consistent with the manufacturer's specifications; 5. Measure the concentrations in the effluent stream of NO_x and CO in ppmvd and O₂ in percent, before and after the adjustment is made; and 6. Convert the measured emission values of NO_x, CO and O₂ concentrations to lb/MMBTU according to the following formula: $\text{Lb/MMBTU} = \text{ppmvd} * \text{MW} * \text{F dry factor} * \text{O}_2 \text{ correction factor} / 387,000,000$, where: ppmvd is the concentration in parts per million by volume, dry basis, of NO_x or CO; MW is the Molecular Weight for NO_x=46 lb/lb-mole, CO=28 lb/lb-mole; F Dry factor for: Natural Gas = 8,710 dscf/MMBTU, Residual or fuel oil = 9,190 dscf/MMBTU; O₂ correction factor: $(20.9\%) / (20.9\% - \text{O}_2 \text{ measured})$, where O₂ measured is percent oxygen on a dry basis. [N.J.A.C. 7:27-19.16(a)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment of the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who made the adjustment; 3. The NO_x 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 NO_x concentrations were measured; 5. A description of any corrective action taken; 6. Results from any subsequent test performed after taking any corrective action, including concentrations and converted emission values in (lb/MMBTU); 7. The type and amount of fuel used over the 12 months prior to the annual adjustment; 8. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the source operation. The records must be retained for a minimum of five years and to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(b)]</p>	<p>Submit a report: Annually. The owner or operator shall submit an annual adjustment combustion process report to the department within 45 days after the adjustment of the combustion process is completed. The report shall be submitted electronically to: www.njdeponline.com. Instructions for submitting this report online are specified at: http://www.nj.gov/dep/aqpp/adjustment.htm. [N.J.A.C. 7:27-19.16(d)] and [N.J.A.C. 7:27-19.16(c)]</p>

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	The owner or operator of the adjusted equipment or source operation shall ensure that the operating parameter settings are established and recorded after the combustion process is adjusted and that the adjusted equipment or source operation is maintained to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)]	Other: Monitored by the operating parameter settings that are established after the combustion process is adjusted in order to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted and retain until the next annual adjustment, to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(e)].	None.
3	Particulate Emissions <= 4.76 lb/hr. Particulate emission limit from the combustion of fuel based on the rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	NOx (Total) <= 9.93 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 2.48 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	SO2 <= 17 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	TSP <= 7.45 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	PM-10 (Total) <= 0.9 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) <= 0.9 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	HAPs (Total) <= 0.0175 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Acrolein <= 0.0175 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U3 Three 7.93 MMBTU/hr DG/FO boilers**Operating Scenario:** OS1 Boiler #3 - #2 Fuel Oil, OS3 Boiler #4 - #2 Fuel Oil

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	Monitored by visual determination each month during operation, based on an instantaneous determination. Conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes: (1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the opacity problem is not corrected within 24 hours, perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Conduct such test each day until the opacity problem is successfully corrected. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record and retain the following: (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	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
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	Maximum Gross Heat Input <= 7.931 MMBTU/hr (HHV) for each boiler. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
5	Fuel is limited to #2 Fuel Oil. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Fuel Oil Usage <= 992,508 gallons for E7 (U3:OS1) and E8 (U3:OS3) combined per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Fuel Oil Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
7	NOx (Total) <= 2.3 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	CO <= 0.57 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	TSP <= 0.85 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	PM-10 (Total) <= 0.13 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	PM-2.5 (Total) <= 0.13 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U3 Three 7.93 MMBTU/hr DG/FO boilers**Operating Scenario:** OS2 Boiler #4 - Digester Gas, OS4 Boiler #5 - Digester Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	SO ₂ ≤ 2,000 ppmvd. [N.J.A.C. 7:27-7.2(b)1]	None.	None.	None.
3	SO ₂ ≤ 8 lb per any 60-minute period. [N.J.A.C. 7:27-7.2(b)2]	None.	None.	None.
4	SO ₂ ≤ 16 lb/hr at any instant. [N.J.A.C. 7:27-7.2(b)2]	None.	None.	None.
5	Maximum Gross Heat Input ≤ 7.931 MMBTU/hr (HHV) for each boiler. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
6	Fuel is limited to Digester Gas. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Maximum Digester gas usage ≤ 232.14 MMft ³ for E8 (U3:OS2) and E9 (U3:OS4) combined per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
8	NO _x (Total) ≤ 0.86 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	CO ≤ 0.18 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	SO ₂ ≤ 3.81 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO ₂ : Monitored by fuel sampling (e.g. gas) annually. [N.J.A.C. 7:27-22.16(o)]	SO ₂ : Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The permittee shall record the sulfur content of the digester gas. [N.J.A.C. 7:27-22.16(o)]	None.
11	TSP ≤ 0.235 lb/hr. [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
12	PM-10 (Total) <= 0.103 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-2.5 (Total) <= 0.103 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U4 Sludge Digesters and Sludge Storage Tanks Controlled by Flares

Subject Item: CD4 Enclosed Waste Gas Burner, CD5 Enclosed Waste Gas Burner

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Destruction and Removal Efficiency <= 99 % . [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U4 Sludge Digesters and Sludge Storage Tanks Controlled by Flares

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
2	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	<p>Monitored by visual determination each month during operation. Conduct visual inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes:</p> <p>(1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the visible emissions problem is not corrected within 24 hours, a certified opacity reader shall perform an opacity observation, in accordance with N.J.A.C. 7:27B-2. Conduct opacity observations, in accordance with N.J.A.C. 7:27B-2, each day until the opacity problem is successfully corrected. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record and retain the following:</p> <p>(1) Date and time of inspection; (2) Emission Point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results if conducted; and ((8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	VOC (Total) <= 7.95 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	NOx (Total) <= 5.96 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 29.8 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	SO2 <= 29.8 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	TSP <= 2.67 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-10 (Total) <= 2.67 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) <= 2.67 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	HAPs (Total) <= 0.012 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Methane <= 17 tons/yr based on the fuel usage limit for the digesters. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Arsenic Emissions <= 0.0000104 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Cadmium compounds <= 0.0000575 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Formaldehyde <= 0.00392 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U4 Sludge Digesters and Sludge Storage Tanks Controlled by Flares

Operating Scenario: OS1 SLUDGE DIGESTER #1 CONTROLLED BY FLARE #1, OS2 SLUDGE DIGESTER #1 CONTROLLED BY FLARE #2, OS3 SLUDGE DIGESTER #2 CONTROLLED BY FLARE #1, OS4 SLUDGE DIGESTER #2 CONTROLLED BY FLARE #2, OS5 SLUDGE DIGESTER #3 CONTROLLED BY FLARE #1, OS6 SLUDGE DIGESTER #3 CONTROLLED BY FLARE #2, OS7 SLUDGE DIGESTER #4 CONTROLLED BY FLARE #1, OS8 SLUDGE DIGESTER #4 CONTROLLED BY FLARE #2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. [N.J.A.C. 7:27-16.13]	Other: The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. 1. Have been designed to reduce the concentration of VOC from the source operation by no less than 95 percent; 2. Have been installed in accordance with the specifications provided by the manufacturer of the flare; and 3. 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: The owner or operator of a flare subject to this section shall inspect the flare before May 1 of each year beginning in 1995 to verify that the flare continues to be operated in accordance with the manufacturer's specifications for the operation of the flare. The owner or operator of the flare shall record the following in a log book 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. 7:27-16.3(c)] & [N.J.A.C. 7:27-22.16(o)].	Submit a report: As per the approved schedule. The following information shall be submitted with any permit application for any flare to be installed. Such submittal shall be certified in accordance with N.J.A.C. 7:27-1.39. 1. The name of the owner and operator of the flare; 2. The make, model and serial number of the flare; 3. A copy of the manufacturer's specification of the performance standards for the flare; 4. A statement that the flare was installed in accordance with the manufacturer's specifications; 5. A statement that the flare is being operated and maintained in accordance with the manufacturer's specifications; and 6. A statement that the flare will continue to be operated in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-16.3(b)] & [N.J.A.C. 7:27-22.16(o)]
2	Any excess digester gas (not burned in engines or boilers) shall be vented through flares CD4 or CD5. Only one flare may be operated at any one time. The flare that is in operation shall operate continuously. [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
3	Digester gas usage ≤ 365 MMscf for all 4 digester combined per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously during operation of the flare, based on a consecutive 12-month period (rolling one-month basis). The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation in a log book or computer records. The permittee shall record the digester gas usage for the month, and the sum of the digester gas usage for the month with the digester gas used for the previous eleven months. [N.J.A.C. 7:27-22.16(o)]	None.
4	Hours of Operation $\leq 5,000$ hours per digester (during emission to flare) per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Heat content at burner tip (unassisted operation) ≥ 200 BTU/ft ³ [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Total Production Rate $\leq 280,000$ lb/day Maximum material processing rate of sludge (total volatile solids) per day (total for four digesters), based on the operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of design specifications or engineering calculations that demonstrate that the total production rate limit has not been exceeded. [N.J.A.C. 7:27-22.16(o)].	None.
7	VOC (Total) ≤ 0.529 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	NOx (Total) ≤ 0.397 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	CO ≤ 1.98 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	SO ₂ ≤ 1.98 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	TSP ≤ 0.178 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-10 (Total) ≤ 0.178 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-2.5 (Total) ≤ 0.178 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Methane ≤ 3.8 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Arsenic Emissions ≤ 0.00000208 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

U4 Sludge Digesters and Sludge Storage Tanks Controlled by Flares

OS1, OS2, OS3, OS4, OS5, OS6, OS7, OS8

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	Cadmium compounds <= 0.0000115 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Formaldehyde <= 0.000781 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U4 Sludge Digesters and Sludge Storage Tanks Controlled by Flares

Operating Scenario: OS9 SLUDGE STORAGE TANK #1 CONTROLLED BY FLARE #1, OS10 SLUDGE STORAGE TANK #1 CONTROLLED BY FLARE #2, OS11 SLUDGE STORAGE TANK #2 CONTROLLED BY FLARE #1, OS12 SLUDGE STORAGE TANK #2 CONTROLLED BY FLARE #2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. [N.J.A.C. 7:27-16.13]	Other: The owner or operator shall ensure that any flare in use at a major VOC facility shall comply with the applicable requirements. 1. Have been designed to reduce the concentration of VOC from the source operation by no less than 95 percent; 2. Have been installed in accordance with the specifications provided by the manufacturer of the flare; and 3. 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: The owner or operator of a flare subject to this section shall inspect the flare before May 1 of each year beginning in 1995 to verify that the flare continues to be operated in accordance with the manufacturer's specifications for the operation of the flare. The owner or operator of the flare shall record the following in a log book 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. 7:27-16.3(c)] & [N.J.A.C. 7:27-22.16(o)].	Submit a report: As per the approved schedule. The following information shall be submitted with any permit application for any flare to be installed. Such submittal shall be certified in accordance with N.J.A.C. 7:27-1.39. 1. The name of the owner and operator of the flare; 2. The make, model and serial number of the flare; 3. A copy of the manufacturer's specification of the performance standards for the flare; 4. A statement that the flare was installed in accordance with the manufacturer's specifications; 5. A statement that the flare is being operated and maintained in accordance with the manufacturer's specifications; and 6. A statement that the flare will continue to be operated in accordance with the manufacturer's specifications. [N.J.A.C. 7:27-16.3(b)] & [N.J.A.C. 7:27-22.16(o)]
2	Any excess digester gas (not burned in engines or boilers) shall be vented through flares CD4 or CD5. Only one flare may be operated at any one time. The flare that is in operation shall operate continuously. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Digester gas usage ≤ 105 MMscf for both tanks combined per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(e)]	Monitored by fuel flow/firing rate instrument continuously during operation of the flare, based on a consecutive 12-month period (rolling one-month basis). The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation in a log book or computer records. The permittee shall record the digester gas usage for the month, and the sum of the digester gas usage for the month with the digester gas used for the previous eleven months. [N.J.A.C. 7:27-22.16(o)]	None.
4	Heat content at burner tip (unassisted operation) ≥ 200 BTU/ft ³ [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Total Production Rate $\leq 280,000$ lb/day Maximum material processing rate of sludge (total volatile solids) per day (total for four digesters), based on the operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of design specifications or engineering calculations that demonstrate that the total production rate limit has not been exceeded. [N.J.A.C. 7:27-22.16(o)].	None.
6	VOC (Total) ≤ 0.304 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	NOx (Total) ≤ 0.228 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	CO ≤ 1.14 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	SO2 ≤ 1.14 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	TSP ≤ 0.102 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	PM-10 (Total) ≤ 0.102 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-2.5 (Total) ≤ 0.102 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Arsenic Emissions ≤ 0.0000012 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Cadmium compounds ≤ 0.00000658 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Formaldehyde ≤ 0.000448 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U12 Pugmills # 1 and # 2

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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 %. No person shall cause, suffer, allow or permit particles 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)] & [N.J.A.C. 7:27-6.2(e)]	Opacity: Monitored by visual determination each month during operation, based on an instantaneous determination. The permittee 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 upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	None.
3	VOC (Total) <= 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
4	VOC (Total) <= 0.88 tons/yr based on material transfer limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U12 Pugmills # 1 and # 2

Operating Scenario: OS1 TWO CENTRIFUGES TO ONE OF TWO PUGMILLS, OS2 TWO CENTRIFUGES TO ONE OF TWO PUGMILLS, OS3 TWO CENTRIFUGES TO TWO PUGMILLS, OS4 TWO CENTRIFUGES TO TWO PUGMILLS

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 44,000 lb/hr. Maximum material processing rate (Wet total for the emission unit). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by calculations daily, based on a daily average. The process throughput to the pugmills shall be calculated based on the amount of wet cake leaving the centrifuges (U20) and the amount of lime feed to the pugmills. [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	Total Material Transferred <= 1,265 lb/hr. The maximum lime feed rate to each pugmill. [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by calculations daily, based on a daily average. The process throughput to the pugmills shall be calculated based on the amount of wet cake leaving the centrifuges (U20) and the amount of lime feed to the pugmills. [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
3	VOC (Total) <= 0.2 lb/hr for each pugmill. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	TSP <= 0.05 lb/hr (below reporting threshold). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U13 Two 6,490 cu ft Liquid Sludge Storage Tanks

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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	VOC (Total) <= 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
3	Total Material Transferred <= 2,494,844 MMGal/year of municipal sewerage sludge. [N.J.A.C. 7:27-22.16(e)]	Monitored by material feed/flow monitoring continuously, based on one calendar year. The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system annually in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
4	VOC (Total) <= 0.876 tons/yr based on the material transfer limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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New Jersey Department of Environmental Protection Facility Specific Requirements

Emission Unit: U16 Two 5.23 MMBTU/hr NG/FO boilers

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The owner or operator of an industrial/commercial/institutional boiler or other indirect heat exchanger with a gross heat input of at least five million BTU per hour or more shall adjust the combustion process annually in the same quarter of each calendar year. The adjustment of the combustion process shall be done in accordance with the procedure set forth at N.J.A.C. 7:27-19.16. [N.J.A.C. 7:27-16.8(b)], [N.J.A.C. 7:27-16.8(c)] and [N.J.A.C. 7:27-19.7(g)]	Monitored by periodic emission monitoring annually. The owner or operator shall perform the adjustment of the combustion process in accordance with the specific procedures for combustion adjustment monitoring specified in NJDEP Technical Manual 1005 and the procedure set forth at N.J.A.C. 7:27-19.16(a) as follows: 1. Inspect the burner, and clean or replace any components of the burner as necessary; 2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern consistent with the manufacturer's specifications; 3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly; 4. Minimize the total emissions of NOx and CO consistent with the manufacturer's specifications; 5. Measure the concentrations in the effluent stream of NOx, CO and O2 in ppmvd, before and after the adjustment is made; and 6. Convert the emission values of NOx, CO and O2 concentrations measured in lb/MMBTU according to the following formula: $\text{Lb/MMBTU} = \text{ppmvd} * \text{MW} * \text{F dry factor} * \text{O2 correction factor} / 387,000,000$, 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, CO=28 lb/lb-mole; F Dry factor for: Natural Gas = 8,710 dscf/MMBTU, Residual or fuel oil = 9,190 dscf/MMBTU; O2 correction factor: $(20.9\%) / (20.9\% - \text{O2 measured})$, where O2 measured is percent oxygen on a dry basis. [N.J.A.C. 7:27-19.16(a)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment of the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who made the adjustment; 3. The NOx and CO concentrations in the effluent stream, in ppmvd, before and after each actual adjustment was made; 4. The concentration of O2 (in percent dry basis) at which the CO and NOx concentrations were measured; 5. A description of any corrective action taken; 6. Results from any subsequent test performed after taking any corrective action, including concentrations and converted emission values in (lb/MMBTU); 7. The type and amount of fuel used over the 12 months prior to the annual adjustment; 8. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the source operation. The records must be retained for a minimum of five years and to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(b)]	Submit a report: Annually. The owner or operator shall submit an annual adjustment combustion process report to the department within 45 days after the adjustment of the combustion process is completed. The report shall be submitted electronically to: www.njdeponline.com . Instructions for submitting this report online are specified at: http://www.nj.gov/dep/aqpp/adjustment.htm . [N.J.A.C. 7:27-19.16(d)] and [N.J.A.C. 7:27-19.16(c)]

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	The owner or operator of the adjusted equipment or source operation shall ensure that the operating parameter settings are established and recorded after the combustion process is adjusted and that the adjusted equipment or source operation is maintained to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)]	Other: Monitored by the operating parameter settings that are established after the combustion process is adjusted in order to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted and retain until the next annual adjustment, to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(e)].	None.
3	Particulate Emissions \leq 3.14 lb/hr. Particulate emission limit from the combustion of fuel based on the rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
4	Maximum Gross Heat Input \leq 5.23 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
5	NOx (Total) \leq 6.66 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	CO \leq 3.2 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	TSP \leq 0.701 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	PM-10 (Total) \leq 0.526 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) \leq 0.526 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U16 Two 5.23 MMBTU/hr NG/FO boilers

Operating Scenario: OS1 NATURAL GAS - Boiler #1, OS3 NATURAL GAS - Boiler #2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	Natural Gas Usage \leq 46 MMft ³ per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously The monitor 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)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
3	NO _x (Total) \leq 0.52 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	CO \leq 0.44 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	TSP \leq 0.062 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	PM-10 (Total) \leq 0.062 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) \leq 0.062 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U16 Two 5.23 MMBTU/hr NG/FO boilers

Operating Scenario: OS2 # 2 FUEL OIL - Boiler #1, OS4 # 2 FUEL OIL - Boiler #2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	Monitored by visual determination each month during operation, based on an instantaneous determination. Conduct visual opacity inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes: (1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the opacity problem is not corrected within 24 hours, perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Conduct such test each day until the opacity problem is successfully corrected. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record and retain the following: (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	Sulfur Content in Fuel <= 15 ppmw (0.0015% by weight). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by review of fuel delivery records per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	Sulfur Content in Fuel: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery showing fuel sulfur content. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
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	Fuel Oil Usage <= 330,000 gallons per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Fuel Oil Usage: Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Fuel Oil Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
5	NOx (Total) <= 0.76 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	CO <= 0.19 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	TSP <= 0.08 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	PM-10 (Total) <= 0.08 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-2.5 (Total) <= 0.08 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U18 4600 cu ft Lime Storage Silo controlled by Baghouse CD3

Subject Item: CD3 LIME DUST FILTER

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Destruction and Removal Efficiency <= 99 % for PM-10 and TSP. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.
2	Pressure Drop Across the Baghouse >= 1 and Pressure Drop Across the Baghouse <= 10 inches w.c. A pressure drop measurement of less than 1 inch w.c. shall not necessarily mean a damaged filter when new filter(s) have just been installed. [N.J.A.C. 7:27-22.16(a)]	Pressure Drop Across the Baghouse: Monitored by pressure drop instrument each month during operation. The monitor 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)]	Pressure Drop Across the Baghouse: 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	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Other: Visually inspect the bags according to the manufacturer's specifications or at least annually.[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 owner or operator shall maintain readily available records for maintenance activities and inspections. The records shall include the date of the activity and/or inspection, results of the inspection, a description of work performed and the name of the person perform the activity or inspection. [N.J.A.C. 7:27-22.16(o)]	None.

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

Emission Unit: U18 4600 cu ft Lime Storage Silo controlled by Baghouse CD3

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions \leq 0.5 lb/hr. 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 \leq 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 longer than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)]&. [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
3	Total Throughput \leq 6,570 tons of lime per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Total Throughput: Monitored by calculations each month during operation. [N.J.A.C. 7:27-22.16(o)]	Total Throughput: 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.
4	TSP \leq 0.74 tons/yr based on the total throughput. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	PM-10 (Total) \leq 0.74 tons/yr based on the total throughput. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-2.5 (Total) \leq 0.74 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U18 4600 cu ft Lime Storage Silo controlled by Baghouse CD3

Operating Scenario: OS1 TYPICAL - Lime Storage Silo - LS-1

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	TSP <= 0.17 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	PM-10 (Total) <= 0.17 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-2.5 (Total) <= 0.17 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U19 731 gal/min centrate wetwell

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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	VOC (Total) <= 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
3	VOC (Total) <= 0.44 tons/yr based on the material transfer limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U19 731 gal/min centrate wetwell**Operating Scenario:** OS1 TYPICAL - Centrate Wetwell CP-1

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 731 gal/min. Maximum material processing rate (wet, based on a daily average). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by material feed/flow monitoring continuously, based on a daily average. The monitor 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)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) <= 0.1 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U20 Three Centrifuges cumulative 420 gal/min

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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	No more than two centrifuges shall be operating at any one time [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	VOC (Total) <= 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
4	VOC (Total) <= 0.876 tons/yr based on the material processing rate. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U20 Three Centrifuges cumulative 420 gal/min

Operating Scenario: OS1 CENTRIFUGE 1, OS2 CENTRIFUGE 2, OS3 CENTRIFUGE 3

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 420 gal/min (wet) for all 3 centrifuges (OS1, OS2 and OS3) combined. [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by material feed/flow monitoring continuously. The monitor 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)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system each hour during operation. The maximum sludge feed rate into each centrifuge shall be recorded in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) <= 0.1 lb/hr for each centrifuge. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U25 Dewatering Facility**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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 Permittee shall inject potassium permanganate prior to the centrifuges if the hydrogen sulfide concentration in the building exceeds 7 ppm. The potassium permanganate pumps shall always be operating when the H ₂ S concentration is above 7 ppm. The permittee may use the VAC-U-Max system at the transfer station (U40, E61) for this purpose. [N.J.A.C. 7:27-22.16(a)] & [N.J.A.C. 7:27-22.16(e)]	Monitored by instrument continuously during operation, based on an instantaneous determination. The monitor 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)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event (when the hydrogen sulfide concentration exceeds 7 ppm). Keep records of date and time and amount of potassium permanganate used in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
3	VOC (Total) <= 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
4	VOC (Total) <= 2.42 tons/yr based on the sludge feed rate. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by calculations annually, based on one calendar year. [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 (once per calendar year) in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.

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

Emission Unit: U25 Dewatering Facility

Operating Scenario: OS1 INCLINED SCREW CONVEYOR 1, OS2 INCLINED SCREW CONVEYOR 2, OS3 INCLINED SCREW CONVEYOR 3, OS4 REVERSING BELT CONVEYOR 1, OS5 REVERSING BELT CONVEYOR 2, OS6 INCLINED SCREW CONVEYOR 4, OS7 INCLINED SCREW CONVEYOR 5, OS8 METERING BELT CONVEYOR 1, OS9 METERING BELT CONVEYOR 2, OS10 BELT CONVEYOR 1, OS11 BELT CONVEYOR 2, OS12 REVERSING BELT CONVEYOR 3, OS13 REVERSING BELT CONVEYOR 4, OS14 STABILIZED SLUDGE BIN 1, OS15 STABILIZED SLUDGE BIN 2, OS16 STABILIZED SLUDGE BIN 3

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum Sludge Feed Rate $\leq 5,572$ lb/hr (dry) total for the emission unit (OS1-OS16). [N.J.A.C. 7:27-22.16(e)]	Maximum Sludge Feed Rate: Monitored by material feed/flow monitoring daily, based on a daily average The amount of sludge processed on a dry weight basis shall be monitored daily. The monitor 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)]	Maximum Sludge Feed Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system daily. The amount of sludge processed on a dry weight basis shall be recorded daily a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) ≤ 2.8 lb/hr for OS1-OS16 combined. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	TSP < 0.05 lb/hr (below reporting thresholds). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U31 Indirect 33.4 Dry Ton/day Sludge Dryer #2

Subject Item: CD11 Cyclone

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Design Control Efficiency <= 95 % of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.
2	Design Control Efficiency <= 50.1 % of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U31 Indirect 33.4 Dry Ton/day Sludge Dryer #2

Subject Item: CD13 Venturi Scrubber

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Pressure Drop Across the Scrubber ≥ 3 and Pressure Drop Across the Scrubber ≤ 10 inches w.c.. [N.J.A.C. 7:27-22.16(e)]	Pressure Drop Across the Scrubber: Monitored by pressure drop instrument continuously, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(o)]	Pressure Drop Across the Scrubber: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	Flowrate of Scrubbing Medium at Scrubber Inlet ≥ 45 and Flowrate of Scrubbing Medium at Scrubber Inlet ≤ 70 gal/min. [N.J.A.C. 7:27-22.16(e)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Monitored by scrubber flow rate instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
3	Design Control Efficiency ≤ 97 % of TSP & PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U31 Indirect 33.4 Dry Ton/day Sludge Dryer #2

Subject Item: CD14 Boiler

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	Minimum VOC Destruction and Removal Efficiency $\geq 95\%$. [N.J.A.C. 7:27-22.16(e)]	Minimum VOC Destruction and Removal Efficiency: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Minimum VOC Destruction and Removal Efficiency: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
3	Minimum Operating Temperature at the Exit of the Combustion Section $\geq 1,750$ degrees F. [N.J.A.C. 7:27-22.16(e)]	Minimum Operating Temperature at the Exit of the Combustion Section: Monitored by temperature instrument continuously, based on an instantaneous determination. An alarm or other operational warning system shall be installed, properly shielded from direct contact with the flame and shall be designed to sound when temperatures less than the permitted operating temperature are detected at any time. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor 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)]	Minimum Operating Temperature at the Exit of the Combustion Section: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	Minimum Residence Time ≥ 0.4 seconds. [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
5	CO <= 100 ppmvd @ 7% O ₂ (50 ppmvd for oxygen concentrations in the flue gas greater than 14%). [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	Oxygen <= 14 %. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	Oxygen: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	VOC (Total) <= 50 ppmvd @ 7% O ₂ (25 ppmvd for oxygen concentrations in the flue gas greater than 14%) or 5% of the maximum VOC entering boiler. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Maximum Gross Heat Input <= 16.74 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
9	Boiler fuel is limited to digester gas [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Boiler shall be equipped with low-NOx burners and Flue Gas Recirculation. Boiler shall not be shutdown until all air contaminants have been purged from the air handling systems after shutdown of its dryer. Boiler shall operate for ten (10) minutes after shutdown of its dryer to purge the air handling system. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U31 Indirect 33.4 Dry Ton/day Sludge Dryer #2, U32 Indirect 33.4 Dry Ton/day Sludge Dryer #3, U33 Indirect 33.4 Dry Ton/day Sludge Dryer #1
Operating Scenario: OS Summary

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

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
2	<p>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 CO, NO_x, TSP, PM-10, SO₂, VOC, lead, phosphorous, and phenol emission limits as specified in the compliance plan for U31:OS1.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.</p> <p>The permittee may propose, in the stack test protocol, to use CEMS data to satisfy the stack testing requirements, for NO_x and/or CO, with EMS approval. In order for EMS to approve using CEMS data at the time of the stack test, the CEMS must be certified and be in compliance with all daily, quarterly and annual quality assurance requirements. The CEMS shall monitor and record emissions in units identical to those required by the applicable stack testing conditions of this permit. CEMS data, if allowed by this permit, shall be taken at the same worst case conditions as described above. [N.J.A.C. 7:27-22.16(a)]</p>	Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 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.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and . [N.J.A.C. 7:27-22.18(h)]</p>

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>CEMS/COMS REQUIREMENTS SUMMARY</p> <p>Install and operate Continuous Monitoring Systems (CEMS or COMS) and conduct Performance Specification Test (PST) in accordance with the NJDEP Technical Manual 1005, to demonstrate compliance with CO and O₂ as specified in the compliance plan for U31:OS0. The CEMS shall include continuous monitoring of all necessary parameters (e.g. oxygen, moisture, temperature, flow rate) to allow the required corrections to be applied to demonstrate compliance with the emission limits.</p> <p>Continuous parametric monitors and continuous parametric data recorders shall be installed and operated to demonstrate compliance with monitoring parameters, for example, flue gas flow rate, temperature, etc. as specified in the compliance plan for [insert OS].</p> <p>[N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>CEMS/COMS - Submit equipment protocol, submit a PST protocol, conduct PST and submit results: As per the approved schedule Submit equipment 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 permit BOP180002 and submit PST protocol within 90 days from the approved permit BOP180002. Within 30 days of PST protocol approval, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date.</p> <p>Perform the PST test within 180 days from the date of the approved permit BOP180002 or within 90 days after the initial startup of the new or modified source, or within 90 days after the PST protocol approval, whichever comes later.</p> <p>Submit the performance specification test report to EMS no later than 30 days from the date of testing. The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(k)] and. [N.J.A.C. 7:27-22.18(g)]</p>

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>CEMS/COMS REQUIREMENTS SUMMARY</p> <p>The Permittee shall operate CEMS according to the approved certification and in compliance with daily, quarterly, and annual quality assurance requirements. The CEMS shall include continuous monitoring of all necessary parameters (e.g. oxygen, moisture, temperature, flow rate) to allow the required corrections to be applied to demonstrate compliance with the emission limits.</p> <p>The Permittee shall request approval from the Department's Emission Measurement Section (EMS) to allow continued use of the existing CEMS when a change to the units of measurement is made to a permit limit. [N.J.A.C. 7:27-22.16(a)]</p>	None.	Other: Maintain readily accessible records of the Permittee's written request to EMS, and the response from EMS . [N.J.A.C. 7:27-22.16(o)].	Comply with the requirement: Upon occurrence of event. Submit a written request to the EMS within 30 days from the date of the approved operating permit to determine whether a full CEMS recertification is required, whether the change can follow the procedures for data recording and storage equipment upgrades found in the Department's Technical Manual 1005 Section IV.B.3(f), or if continued use of the existing CEMS is allowed. [N.J.A.C. 7:27-22]
5	<p>The owner or operator shall develop a QA/QC plan for each CEMS/COMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQPP webpage at http://www.state.nj.us/dep/aqpp. [N.J.A.C. 7:27-22.16(a)]</p>	Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(o)].	Other: Maintain readily accessible records of the QA/QC plan including QA data and quarterly reports. [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
6	<p>The owner or operator of an industrial/commercial/institutional boiler or other indirect heat exchanger with a gross heat input of at least five million BTU per hour or more shall adjust the combustion process annually in the same quarter of each calendar year.</p> <p>If the source is not operated during the quarter of the calendar year in which the annual adjustment is to be performed, the owner or operator shall perform the adjustment within seven days after the boiler or other indirect heat exchanger is next operated.</p> <p>The adjustment of the combustion process shall be done in accordance with the procedure set forth at N.J.A.C. 7:27-19.16. [N.J.A.C. 7:27-16.8(b)], [N.J.A.C. 7:27-16.8(c)] and [N.J.A.C. 7:27-19.7(g)]</p>	<p>Monitored by periodic emission monitoring annually. The owner or operator shall perform the adjustment of the combustion process in accordance with the combustion adjustment monitoring procedures specified in NJDEP Technical Manual 1005 and the procedure at N.J.A.C. 7:27-19.16(a) as follows: 1. Inspect the burner, and clean or replace any components of the burner as necessary; 2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern consistent with the manufacturer's specifications; 3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly; 4. Minimize the total emissions of NOx and CO consistent with the manufacturer's specifications; 5. Measure the concentrations in the effluent stream of NOx and CO in ppmvd and O2 in percent, before and after the adjustment is made; and 6. Convert the measured emission values of NOx, CO and O2 concentrations to lb/MMBTU according to the following formula: $\text{Lb/MMBTU} = \text{ppmvd} * \text{MW} * \text{F dry factor} * \text{O2 correction factor} / 387,000,000$, 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, CO=28 lb/lb-mole; F Dry factor for: Natural Gas = 8,710 dscf/MMBTU, Residual or fuel oil = 9,190 dscf/MMBTU; O2 correction factor: $(20.9\%)/(20.9\% - \text{O2 measured})$, where O2 measured is percent oxygen on a dry basis. [N.J.A.C. 7:27-19.16(a)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon performing combustion adjustment of the following information for each adjustment: 1. The date of the adjustment and the times at which it began and ended; 2. The name, title and affiliation of the person who made the adjustment; 3. The NOx and CO concentrations in the effluent stream, in ppmvd, before and after each actual adjustment was made; 4. The concentration of O2 (in percent dry basis) at which the CO and NOx concentrations were measured; 5. A description of any corrective action taken; 6. Results from any subsequent test performed after taking any corrective action, including concentrations and converted emission values in (lb/MMBTU); 7. The type and amount of fuel used over the 12 months prior to the annual adjustment; 8. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the source operation. The records must be retained for a minimum of five years and to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(b)]</p>	<p>Submit a report: Annually. The owner or operator shall submit an annual adjustment combustion process report to the department within 45 days after the adjustment of the combustion process is completed. The report shall be submitted electronically to: www.njdeponline.com. Instructions for submitting this report online are specified at: http://www.nj.gov/dep/aqpp/adjustment.htm. [N.J.A.C. 7:27-19.16(d)] and [N.J.A.C. 7:27-19.16(c)]</p>

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	The owner or operator of the adjusted equipment or source operation shall ensure that the operating parameter settings are established and recorded after the combustion process is adjusted and that the adjusted equipment or source operation is maintained to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)]	Other: Monitored by the operating parameter settings that are established after the combustion process is adjusted in order to operate consistent with the annual adjustment. [N.J.A.C. 7:27-19.16(e)].	Other: The owner or operator shall record the operating parameter settings that are established after the combustion process is adjusted and retain until the next annual adjustment, to be made readily accessible to the Department upon request. [N.J.A.C. 7:27-19.16(e)].	None.
8	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
9	The permittee shall submit an Excess Emission Monitoring Performance Report to the Department for review and approval. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal via the Department's online reporting system to the Department for review and approval. [N.J.A.C. 7:27-22.16(a)]
10	VOC (Total) \leq 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
11	Only 2 of the sludge dryers (U31, U32 and U33) may operate at any time. [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
12	No person shall use or cause to be used any equipment or control apparatus unless all components connected or attached to, or serving the equipment or control apparatus, are functioning properly and are used in accordance with the preconstruction permit and certificate and all conditions and provisions thereto. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Natural Gas Usage ≤ 143.77 MMft ³ for each dryer/boiler per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Natural Gas Usage: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
14	Maximum Sludge Feed Rate ≤ 33.4 dry tons/day for each dryer, and no more than 66.8 dry tons/day for all three dryers (U31, U32, and U33). [N.J.A.C. 7:27-22.16(e)]	Maximum Sludge Feed Rate: Monitored by material feed/flow monitoring continuously, based on one calendar day. The Permittee shall record the total gallonage feed rate (GPD) for each dryer in each 24-hour period through a magnetic flow meter located at the feed pump inlet to each centrifuge in operation. During this time period, the total solids content (% solids) would be determined by collecting and analyzing a sludge feed and centrate sample. The sludge feed rate to the dryer system shall be determined by calculating the % recovery of the solids and converting to DTD as follows: $DTD = GPD * (\% \text{ sol}/100) * (\% \text{ Recovery}/100) * 8.34/2000$. The monitor 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)]	Maximum Sludge Feed Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
15	VOC (Total) ≤ 1.4 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	NOx (Total) ≤ 5.8 tons/yr based on the fuel usage limits. [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
17	CO <= 6.04 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
18	SO2 <= 1.3 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
19	TSP <= 3.51 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
20	PM-10 (Total) <= 3.51 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
21	PM-2.5 (Total) <= 3.51 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	HAPs (Total) <= 0.199 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Lead Emissions <= 0.00078 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
24	Phenol <= 0.131 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
25	Phosphorus <= 0.0657 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
26	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. (NSPS Subpart A) [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]
27	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. (NSPS Subpart A) [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of 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. (NSPS Subpart A) [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)]
29	The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. (NSPS Subpart A) [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall contain the information required in 40 CFR 60.7(b) and be postmarked by the 30th day following the end of each six-month period. The report shall be submitted to the EPA Region 2 Administrator and the appropriate Regional Enforcement Office of NJDEP and be in the format specified at 40 CFR Part 60.7(c) and 40 CFR Part 60.7(d). [40 CFR 60.7(c)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	The owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. (NSPS Subpart A) [40 CFR 60.7(f)]	None.	Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous monitoring system or monitoring device calibration checks, all adjustments/maintenance performed on these systems or devices, and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the dates of the record, except as prescribed in 40 CFR 60.7(f)(1) through (3). Sources subject to 40 CFR 70, are required to retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application, per 40 CFR 70.6(a)(3)(ii)(B). [40 CFR 60.7(f)].	None.
31	At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. (NSPS Subpart A) [40 CFR 60.11(d)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (NSPS Subpart A) [40 CFR 60.12]	None.	None.	None.
33	The owner or operator shall notify the Administrator of the proposed replacement of components, upon triggering reconstruction as defined at 40 CFR 60.15. (NSPS Subpart A) [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)]
34	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. (NSPS Subpart A) [40 CFR 60.19]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	Sulfur Content in Fuel <= 0.5 weight %. The fuel oil sulfur limit apply at all times, including periods of startup, shutdown and malfunction. (NSPS Subpart Dc) [40 CFR 42c(d)] & [40 CFR 60.42c(i)]	Other: Monitored by analysis of fuel sample by a certified laboratory, in compliance with EPA waiver to 40 CFR 60 Subpart Dc, dated October 25, 1995, as follows: Perform an analysis of the fuel for sulfur content (as percent by weight) for each composite sample representing either 100,000 gallons received on a quarterly basis, whichever comes first. The composite sample shall be representative of and volumetrically proportional to the fuel received. [40 CFR 60.44c(g)] & [40 CFR 60.46c(d)(2)].	Other: Recordkeeping by maintaining the following records, in compliance with EPA waiver dated October 25, 1995, as follows: 1. Keep records and reports of all shipping and sulfur analyses performed by the fuel supplier and ensure the product meets ASTM specifications and all remaining state, local, and federal regulations. 2. Keep and maintain records of each composite sample analysis performed. These records shall include, but not limited to a) the total volume of each composite sample along with the total respective volume it represents, b) the volume of each portion making up the composite sample along with its respective representing volume, c) the times, dates, and truck identifications for each delivery, and, d) results of all sampling analyses performed. Maintain a method showing the association between a), b), c), and d). 3. Maintain all required records readily available for inspection by the Department, EPA or local agency representatives.[40 CFR 60.48c].	None.
36	Opacity <= 20 % (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. This opacity standard shall apply at all times, except during periods of startup, shutdown, or malfunction. (NSPS Subpart Dc) [40 CFR 43c(c)] & [40 CFR 60.43c(d)]	None.	None.	None.
37	Record and maintain the amount of each fuel combusted in the boiler each month. (NSPS Subpart Dc) [40 CFR 60.48c(g)]	Other: Monitored continuously with fuel flow meters. The flow meters shall be maintained and calibrated consistent with the manufacturer's specifications which must be made available to the NJDEP upon request.[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 the fuel usage monthly. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
38	Maintain all required records for a period of two years following the date of such record. (NSPS Subpart Dc) [40 CFR 60.48c(i)]	None.	Other: Maintain all required records for a period of two years following the date of such record.[40 CFR 60.48c(i)].	None.

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

Emission Unit: U31 Indirect 33.4 Dry Ton/day Sludge Dryer #2

Operating Scenario: OS1 Dryer 2 - normal operation - Natural gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 0.5 lb/hr. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
2	NOx (Total) <= 1.32 lb/hr. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
3	CO <= 1.4 lb/hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
4	SO2 <= 0.3 lb/hr. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
5	TSP <= 0.8 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	PM-10 (Total) <= 0.8 lb/hr. [N.J.A.C. 7:27-22.16(e)]	PM-10 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	PM-2.5 (Total) \leq 0.8 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	PM-2.5 (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	PM-2.5 (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	Lead Emissions \leq 0.0002 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Lead Emissions: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Lead Emissions: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	Phosphorus \leq 0.015 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Phosphorus: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Phosphorus: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
10	Phenol \leq 0.03 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Phenol: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Phenol: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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

Emission Unit: U32 Indirect 33.4 Dry Ton/day Sludge Dryer #3

Subject Item: CD15 Cyclone

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Design Control Efficiency <= 95 % of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.
2	Design Control Efficiency <= 50.1 % of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U32 Indirect 33.4 Dry Ton/day Sludge Dryer #3

Subject Item: CD17 Venturi Scrubber

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Flowrate of Scrubbing Medium at Scrubber Inlet ≥ 45 and Flowrate of Scrubbing Medium at Scrubber Inlet ≤ 70 gal/min. [N.J.A.C. 7:27-22.16(e)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Monitored by scrubber flow rate instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	Design Control Efficiency ≤ 97 % of TSP & PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U32 Indirect 33.4 Dry Ton/day Sludge Dryer #3

Subject Item: CD18 Boiler

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	Minimum VOC Destruction and Removal Efficiency $\geq 95\%$. [N.J.A.C. 7:27-22.16(e)]	Minimum VOC Destruction and Removal Efficiency: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Minimum VOC Destruction and Removal Efficiency: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
3	Minimum Operating Temperature at the Exit of the Combustion Section $\geq 1,750$ degrees F. [N.J.A.C. 7:27-22.16(e)]	Minimum Operating Temperature at the Exit of the Combustion Section: Monitored by temperature instrument continuously, based on an instantaneous determination. An alarm or other operational warning system shall be installed, properly shielded from direct contact with the flame and shall be designed to sound when temperatures less than the permitted operating temperature are detected at any time. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor 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)]	Minimum Operating Temperature at the Exit of the Combustion Section: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	Minimum Residence Time ≥ 0.4 seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	CO <= 100 ppmvd @ 7% O ₂ (50 ppmvd for oxygen concentrations in the flue gas greater than 14%). [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	Oxygen <= 14 %. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	Oxygen: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	VOC (Total) <= 50 ppmvd @ 7% O ₂ (25 ppmvd for oxygen concentrations in the flue gas greater than 14%) or 5% of the maximum VOC entering boiler. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Maximum Gross Heat Input <= 16.74 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
9	Boiler fuel is limited to digester gas [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Boiler shall be equipped with low-NOx burners and Flue Gas Recirculation. Boiler shall not be shutdown until all air contaminants have been purged from the air handling systems after shutdown of its dryer. Boiler shall operate for ten (10) minutes after shutdown of its dryer to purge the air handling system. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U32 Indirect 33.4 Dry Ton/day Sludge Dryer #3

Operating Scenario: OS1 Dryer 3 - normal operation - Natural gas

The requirements for this item are identical to those for: U31 OS1

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

Emission Unit: U33 Indirect 33.4 Dry Ton/day Sludge Dryer #1

Subject Item: CD19 Cyclone

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Design Control Efficiency <= 95 % of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.
2	Design Control Efficiency <= 50.1 % of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U33 Indirect 33.4 Dry Ton/day Sludge Dryer #1

Subject Item: CD21 Venturi Scrubber

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Flowrate of Scrubbing Medium at Scrubber Inlet ≥ 45 and Flowrate of Scrubbing Medium at Scrubber Inlet ≤ 70 gal/min. [N.J.A.C. 7:27-22.16(e)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Monitored by scrubber flow rate instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Flowrate of Scrubbing Medium at Scrubber Inlet: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	Design Control Efficiency ≤ 97 % of TSP & PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U33 Indirect 33.4 Dry Ton/day Sludge Dryer #1

Subject Item: CD22 Boiler

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	Minimum VOC Destruction and Removal Efficiency $\geq 95\%$. [N.J.A.C. 7:27-22.16(e)]	Minimum VOC Destruction and Removal Efficiency: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Minimum VOC Destruction and Removal Efficiency: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
3	Minimum Operating Temperature at the Exit of the Combustion Section $\geq 1,750$ degrees F. [N.J.A.C. 7:27-22.16(e)]	Minimum Operating Temperature at the Exit of the Combustion Section: Monitored by temperature instrument continuously, based on an instantaneous determination. An alarm or other operational warning system shall be installed, properly shielded from direct contact with the flame and shall be designed to sound when temperatures less than the permitted operating temperature are detected at any time. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor 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)]	Minimum Operating Temperature at the Exit of the Combustion Section: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	None.
4	Minimum Residence Time ≥ 0.4 seconds. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	CO <= 100 ppmvd @ 7% O ₂ (50 ppmvd for oxygen concentrations in the flue gas greater than 14%). [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	Oxygen <= 14 %. [N.J.A.C. 7:27-22.16(e)]	Oxygen: Monitored by continuous emission monitoring system continuously. [N.J.A.C. 7:27-22.16(o)]	Oxygen: Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal starting with the quarter in which the Performance Specification Test was conducted, for review and approval. Quarterly EEMPR reports shall include all quarterly and annual QA data. This report shall be submitted whether or not an emission exceedance has occurred. See CEMS and QA/QC requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	VOC (Total) <= 50 ppmvd @ 7% O ₂ (25 ppmvd for oxygen concentrations in the flue gas greater than 14%) or 5% of the maximum VOC entering boiler. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Maximum Gross Heat Input \leq 16.74 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
9	Boiler fuel is limited to digester gas [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Boiler shall be equipped with low-NOx burners and Flue Gas Recirculation. Boiler shall not be shutdown until all air contaminants have been purged from the air handling systems after shutdown of its dryer. Boiler shall operate for ten (10) minutes after shutdown of its dryer to purge the air handling system. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U33 Indirect 33.4 Dry Ton/day Sludge Dryer #1

Operating Scenario: OS1 Dryer 1 - normal operation - Natural gas

The requirements for this item are identical to those for: U31 OS1

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New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U34 Process Drain Lift Station Wet Well

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions \leq 0.5 lb/hr. 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	Total Material Transferred \leq 232 gal/min Maximum material processing rate (wet daily average). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by material feed/flow monitoring continuously, based on a daily average. The monitor 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)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
3	VOC (Total) \leq 3.5 lb/hr. The maximum allowable hourly VOC emission rate. The permittee shall maintain process records sufficient to demonstrate whether the VOC emission rate from actual source operations does not exceed the allowable VOC emission rate under operating conditions. [N.J.A.C. 7:27-16.16(d)] & [N.J.A.C. 7:27-16.16(g)1ii]	Other: For each different kind of batch operation, the Permittee shall conduct an analysis of the source operation, which demonstrates that, under worst case operating condition that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with the applicable requirements.[N.J.A.C. 7:27-16.16(g)1ii].	Other: Recordkeeping by manual logging of each analysis results in the operation log books and maintain the records for at least five years from the date of each analysis report.[N.J.A.C. 7:27-22.19(a)].	None.
4	VOC (Total) $<$ 0.05 lb/hr (below reporting thresholds). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	TSP $<$ 0.05 lb/hr (below reporting thresholds). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U37 Two Sludge Storage Tanks controlled by 12 MMBTU/hr Flare CD7

Subject Item: CD7 WASTE GAS BURNER -SST #1 AND 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	No visible emissions exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-3.2(a)] and [N.J.A.C. 7:27-3.2(c)]	None.	None.	None.
2	The flare shall: 1. Have been designed to reduce the concentration of VOC from the source operation by no less than 95 percent; 2. Have been installed in accordance with the specifications provided by the manufacturer of the flare; and 3. Be operated and maintained in accordance with the specifications provided by the manufacturer of the flare. [N.J.A.C. 7:27-16.13(a)]	None.	Other: The owner or operator of the flare shall record the following in a permanently bound log book 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(c)].	None.
3	Maximum Gross Heat Input <= 12 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(e)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
4	Flare fuel is limited to digester gas [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Digester gas usage<=175.2 MMft ³ per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Monitored by fuel flow/firing rate instrument continuously. The monitor 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)]	Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Design Control Efficiency <= 95 % of VOC. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U37 Two Sludge Storage Tanks controlled by 12 MMBTU/hr Flare CD7

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
2	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	<p>Monitored by visual determination each month during operation. Conduct visual inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes:</p> <p>(1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the visible emissions problem is not corrected within 24 hours, a certified opacity reader shall perform an opacity observation, in accordance with N.J.A.C. 7:27B-2. Conduct opacity observations, in accordance with N.J.A.C. 7:27B-2, each day until the opacity problem is successfully corrected. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Record and retain the following:</p> <p>(1) Date and time of inspection; (2) Emission Point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results if conducted; and ((8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]</p>	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions \leq 0.5 lb/hr. 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.
4	There shall be monitoring of the flare pilot burner by a thermocouple or any equivalent device to ensure the presence of a pilot flame. This is based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	There shall be an automatic system (or equivalent) on the flare to relight the flare pilots to maintain flare combustion. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	Total Material Transferred \leq 150 MMgals of anerobically digested sludge for each of the two tanks per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Total Material Transferred: Monitored by calculations each month during operation. [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: 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.
7	VOC (Total) \leq 6.31 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	NOx (Total) \leq 0.43 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	CO \leq 19.4 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	SO2 \leq 15.7 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	TSP \leq 1.5 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-10 (Total) \leq 1.5 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	PM-2.5 (Total) <= 1.5 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Methane <= 7.4 tons/yr based on fuel usage limits in CD7. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	HAPs (Total) <= 1.1 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	HCl Emissions <= 1.1 tons/yr based on material transfer limit and flare CD7 fuel usage limit. [N.J.A.C. 7:27-22.16(e)]	HCl Emissions: Monitored by calculations quarterly; once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year if quarterly monitoring of HAPs is triggered (see IS9 Ref#1). [N.J.A.C. 7:27-22.16(o)]	HCl Emissions: 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 if quarterly monitoring of HAPs is triggered (see IS9 Ref#1). The permittee shall record the calculated emissions for HCl and the sum of the HCl emissions for 4 consecutive quarters. [N.J.A.C. 7:27-22.16(o)]	None.

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

Emission Unit: U37 Two Sludge Storage Tanks controlled by 12 MMBTU/hr Flare CD7

Operating Scenario: OS1 Sludge Storage Tank #1, OS2 Sludge Storage Tank #2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 1.44 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	NOx (Total) <= 0.098 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	CO <= 4.44 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	SO2 <= 3.59 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	TSP <= 0.342 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-10 (Total) <= 0.342 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-2.5 (Total) <= 0.342 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	Methane <= 1.7 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	HCl Emissions <= 0.24 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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

Emission Unit: U40 500 lb/hr Sludge Transfer Station

Subject Item: CD8 VAC-U-MAX FILTER TRANSFER STATION

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Pressure Drop ≥ 1 and Pressure Drop ≤ 10 inches w.c.. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	Design Control Efficiency $\leq 99\%$ of TSP & PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.
3	The permittee shall conduct filter cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. The filters shall be replaced at intervals not to exceed 2,500 operating hours. [N.J.A.C. 7:27-22.16(a)]& [N.J.A.C. 7:27-22.16(e)]	Other: Visually inspect the filters according to the manufacturer's specifications at least every three months when the transfer station is in operation.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record the date and time of inspection as well as each instance of filter replacement if performed in a log book or computer records.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U40 500 lb/hr Sludge Transfer Station

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
2	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Particulate Emissions <= 0.5 lb/hr. 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.
4	Total Material Transferred <= 500 lb/hr Maximum material processing rate. [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by material feed/flow monitoring daily, based on a daily average. The monitor 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)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
5	TSP < 0.05 lb/hr (below reporting threshold). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Subject Item: CD9 DUST FILTER NO. 1- FLUE V

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Pressure Drop Across the Baghouse ≥ 0.5 and Pressure Drop Across the Baghouse ≤ 5 inches w.c.. [N.J.A.C. 7:27-22.16(e)]	Pressure Drop Across the Baghouse: Monitored by stack emission testing each month during operation. The monitor 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)]	Pressure Drop Across the Baghouse: 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.
2	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Other: Visually inspect the bags according to the manufacturer's specifications monthly when the pelletization system is in operation.[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 in a log book or computer records. The permittee shall record the date and time of inspection as well as each instance of bag maintenance and bag replacement if performed. [N.J.A.C. 7:27-22.16(o)]	None.
3	Design Control Efficiency ≤ 99.9 % of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Subject Item: CD10 DUST FILTER NO. 2- FLUE V

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Pressure Drop Across the Baghouse ≥ 0.5 and Pressure Drop Across the Baghouse ≤ 5 inches w.c.. [N.J.A.C. 7:27-22.16(e)]	Pressure Drop Across the Baghouse: Monitored by pressure drop instrument each month during operation. The monitor 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)]	Pressure Drop Across the Baghouse: 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.
2	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Other: Visually inspect the bags according to the manufacturer's specifications monthly when the pelletization system is in operation.[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 in a log book or computer records. The permittee shall record the date and time of inspection as well as each instance of bag maintenance and bag replacement if performed. [N.J.A.C. 7:27-22.16(o)]	None.
3	Design Control Efficiency ≤ 99.9 % of TSP & PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	Design Control Efficiency: Recordkeeping by ncy.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Opacity <= 20 % , exclusive of condensed water vapor, except for 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)] and [N.J.A.C. 7:27- 6.2(e)]	None.	None.	None.
2	No Visible Emissions, exclusive of condensed water vapor, except for no more than 3 minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(a)]	Monitored by visual determination each month during operation. Conduct visual inspections during daylight hours to identify if the stack has visible emissions, other than condensed water vapor. Select an observation position enabling clear view of emission point(s), minimum 15 feet away without sunlight shining directly into the eyes. Observe for a minimum duration of 30 minutes. Clock observation with two stopwatches starting the 1st watch at the commencement of the 30-minute observation period and starting and stopping the 2nd watch every time visible emissions are first seen and when they cease, and record the observation. If visible emissions are observed for more than 3 minutes in the 30-consecutive minutes: (1) Verify the equipment and/or control device causing visible emissions is operating according to manufacturer's specifications. If it is not operating properly, take corrective action immediately to eliminate the excess emissions. (2) If the visible emissions problem is not corrected within 24 hours, a certified opacity reader shall perform an opacity observation, in accordance with N.J.A.C. 7:27B-2. Conduct opacity observations, in accordance with N.J.A.C. 7:27B-2, each day until the opacity problem is successfully corrected. [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 and retain the following: (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.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Particulate Emissions ≤ 0.5 lb/hr. 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.
4	TSP ≤ 1.91 tons/yr based on material transfer limits. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	PM-10 (Total) ≤ 1.91 tons/yr based on material transfer limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	PM-2.5 (Total) ≤ 1.91 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS1 2,783 Lb/hr Roll Compactor Hopper 1 (E62) Controlled by Baghouse CD9, OS4 2,783 Lb/hr Roll Compactor 1 (E65) Controlled by Baghouse CD9, OS7 2,783 Lb/hr Vibrating Screen 1 (E68) Controlled by Baghouse CD9, OS10 2,783 lb/hr Surge Hopper Transporter 1 (E71) Controlled by Baghouse CD9

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 2,783 lb/hr. Maximum material processing rate (dry). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by calculations daily, based on a daily average. The material processing rate shall be calculated based on the amount of dried sludge received from dryer 1 (refer to U33). [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-10 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	PM-2.5 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements**

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS2 2,783 Lb/hr Roll Compactor Hopper 2 (E63) Controlled by Baghouse CD9, OS5 2,783 Lb/hr Roll Compactor 2 (E66) Controlled by Baghouse CD9, OS8 2,783 Lb/hr Vibrating Screen 2 (E69) Controlled by Baghouse CD9, OS11 2,783 lb/hr Surge Hopper Transporter 2 (E72) Controlled by Baghouse CD9

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 2,783 lb/hr Maximum material processing rate (dry). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by calculations daily, based on a daily average. The material processing rate shall be calculated based on the amount of dried sludge received from dryer 2 (refer to U31). [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-10 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	PM-2.5 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS3 2,783 Lb/hr Roll Compactor Hopper 3 (E64) Controlled by Baghouse CD9, OS6 2,783 Lb/hr Roll Compactor 3 (E67) Controlled by Baghouse CD9, OS9 2,783 Lb/hr Vibrating Screen 3 (E70) Controlled by Baghouse CD9, OS12 2,783 lb/hr Surge Hopper Transporter 3 (E73) Controlled by Baghouse CD9

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 2,783 lb/hr. Maximum material processing rate (dry). [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by calculations daily, based on a daily average. The material processing rate shall be calculated based on the amount of dried sludge received from dryer 3 (refer to U32). [N.J.A.C. 7:27-22.16(o)]	Total Material Transferred: Recordkeeping by manual logging of parameter or storing data in a computer data system daily in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-10 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	PM-2.5 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS13 5,000 CF Bulk Storage Silo 1 (E74) Controlled by Baghouse CD9, OS14 5,000 CF Bulk Storage Silo 2 (E75) Controlled by Baghouse CD9

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Throughput <= 450,000 ft ³ per any consecutive 12 month period. [N.J.A.C. 7:27-22.16(a)]	Total Throughput: Monitored by calculations annually, based on one calendar year. Annual throughput shall be calculated from production records. [N.J.A.C. 7:27-22.16(o)]	Total Throughput: Recordkeeping by manual logging of parameter or storing data in a computer data system annually in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
2	TSP <= 0.05 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	PM-10 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	PM-2.5 (Total) <= 0.05 lb/hr based on the emission limit of TSP. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U41 Pelletization System Controlled by Bahouses

Operating Scenario: OS15 40,000 lb/hrTruck Load Spout 1 (E76) Controlled by Baghouse CD10, OS16 40,000 lb/hrTruck Load Spout 2 (E77) Controlled by Baghouse CD10

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Total Material Transferred <= 40,000 lb/hr Maximum material processing rate. [N.J.A.C. 7:27-22.16(e)]	Total Material Transferred: Monitored by m Equipment Capacity[N.J.A.C. 7:27-22.16(o)].	Total Material Transferred: Recordkeeping by tee shall retain the manufacturer's specifications or engineering calculations indicating the maximum capacity.[N.J.A.C. 7:27-22.16(o)].	None.
2	Hours of Operation <= 1,000 hr/yr. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by manual logging of operating hours upon occurrence of event, based on one calendar year.[N.J.A.C. 7:27-22.16(o)].	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event in a log book, or by electronic data storage in readily accessible computer memories upon occurrence of event. The permittee shall record the start and end times of operation. [N.J.A.C. 7:27-22.16(o)]	None.
3	TSP <= 0.13 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	PM-10 (Total) <= 0.13 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-2.5 (Total) <= 0.13 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U42 Gravity Belt Thickener System

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 0.5 lb/hr. 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	Total Quantity of Sulfur in Compounds other than SO ₂ , SO ₃ and H ₂ SO ₄ <= 1.6 lb/hr from PT42. This N.J.A.C. 7:27-7 requirement does not supersede any more stringent requirements appearing elsewhere in this permit. [N.J.A.C. 7:27- 7.2(i)]	None.	None.	None.
3	The sludge shall not be heat treated or combusted [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Odor <= 5 D/T at nearest receptor (as determined according to ASTM E679-91 as referenced in NJDEP Technical Manual 1002, Guidance on Preparing an Air Quality Modeling Protocol, at the nearest receptor. [N.J.A.C. 7:27-22.16(a)]	Odor: Monitored by odor threshold monitoring upon request of the Department, based on the averaging period as per Department approved test method. This request shall be based on citizen odor complaints verified by the Department or Department delegated agency, to originate from this emission unit. After such a verification is made, the Department may request odor threshold monitoring using sampling and analytical methodologies being reviewed and approved by EMS to be performed under typical operating conditions, corresponding to worst case (maximum) emissions operating conditions, such as during the loading and unloading of the equipment in this emission unit, prior to startup. [N.J.A.C. 7:27-22.16(o)]	Odor: Recordkeeping by odor panel results upon request of the Department. The permittee shall keep all odor monitoring records on-site or at the permittee's offices, for at least five (5) years, readily made available to the Department upon request. [N.J.A.C. 7:27-22.16(o)]	Submit a report: Within 60 days of sampling. Based on citizen odor complaints verified by the Department, or Department delegated agency, to originate from the equipment in this emission unit, the Department may request the permittee to submit odor panel results, and associated odor monitoring records to the NJDEP Central Regional Enforcement Office, for review, within sixty (60) days from the date of completion of work by the odor panel. [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Maximum Sludge Feed Rate <= 600 gal/min (total for emission unit). [N.J.A.C. 7:27-22.16(a)]	Maximum Sludge Feed Rate: Monitored by sludge feed/charge rate monitoring once per shift during operation, based on an instantaneous determination. The monitor 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)]	Maximum Sludge Feed Rate: Recordkeeping by manual logging of parameter or storing data in a computer data system once per shift during operation in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
6	VOC (Total) <= 3.07 tons/yr based on the maximum sludge feed rate. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	HAPs (Total) <= 3.1 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	Hydrogen sulfide <= 3.1 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Methyl mercaptan <= 0.7 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit: U42 Gravity Belt Thickener System**Operating Scenario:** OS1 Gravity Belt Thickener No. 1, OS2 Gravity Belt Thickener No. 2, OS3 Gravity Belt Thickener No. 3, OS4 Filtrate Well, OS5 Cake Well No. 1, OS6 Cake Well No. 2, OS7 Cake Well No. 3

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	VOC (Total) <= 24.5 lb/hr (total) from PT42. [N.J.A.C. 7:27-16.16(f)3]	VOC (Total): Monitored by periodic emission monitoring annually, based on an instantaneous determination , once during the month of August. Testing shall be conducted at existing operational conditions that in the judgement of the facility are the worst case for VOC emissions after any controls, during the day time. From BOP080003. TNMOC (as heptane) will be analyzed from the same gas bag sample that is taken for the hydrogen sulfide and methyl mercaptan analyses using a modified EPA Method TO-12 via gas chromatograph/flame ionization detector. [N.J.A.C. 16.16(g)(1)(ii)] & [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by certified lab analysis results annually , once during the month of August. In addition to compliance testing requirements, the permittee shall maintain process records sufficient to demonstrate compliance with that the emissions of each VOC from actual operations does not exceed the emission rate demonstrated during compliance testing. [N.J.A.C. 16.16(g)(1)(ii)]& . [N.J.A.C. 7:27-22.16(o)]	None.
2	VOC (Total) <= 0.1 lb/hr for each operating scenario (i.e. piece of equipment) in this emission unit. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by periodic emission monitoring annually, based on an instantaneous determination , once during the month of August. Testing shall be conducted at existing operational conditions that in the judgement of the facility are the worst case for VOC emissions after any control, during the day time. TNMOC (as heptane) will be analyzed from the same gas bag sample that is taken for the hydrogen sulfide and methyl mercaptan analyses using a modified EPA Method TO-12 via gas chromatograph/flame ionization detector. [N.J.A.C. 16.16(g)(1)(ii)] & [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by certified lab analysis results annually , once during the month of August. [N.J.A.C. 7:27-22.16(o)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	Hydrogen sulfide \leq 0.1 lb/hr for each operating scenario (i.e. piece of equipment) in this emission unit). [N.J.A.C. 7:27-22.16(a)]	Hydrogen sulfide: Monitored by periodic emission monitoring annually, based on an instantaneous determination , once during the month of August. Testing shall be conducted at existing operational conditions that in the judgement of the facility are the worst case for odor generation, during the day time as per the EMS approved protocol dated July 27, 2005. Monitoring shall begin July 2008. . [N.J.A.C. 7:27-22.16(o)]	Hydrogen sulfide: Recordkeeping by other recordkeeping method (provide description) annually , once during the month of August. The permittee shall record the results of periodic emission monitoring in a logbook or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
4	Methyl mercaptan \leq 0.0225 lb/hr for each operating scenario (i.e. piece of equipment) in this emission unit. The emission monitoring shall be done at the worst case conditions during the day when the temperature is maximum. [N.J.A.C. 7:27-22.16(a)]	Methyl mercaptan: Monitored by periodic emission monitoring annually, based on an instantaneous determination , once during the month of August. Testing shall be conducted at existing operational conditions that in the judgement of the facility are the worst case for odor generation, during the day time as per the EMS approved protocol dated July 27, 2005. Monitoring shall begin July 2008. [N.J.A.C. 7:27-22.16(o)]	Methyl mercaptan: Recordkeeping by other recordkeeping method (provide description) annually , once during the month of August. The permittee shall record the results of periodic emission monitoring in a logbook or computer records. [N.J.A.C. 7:27-22.16(o)]	None.

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

Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines

Subject Item: CD4301 Catalytic Oxidizer, CD4302 Catalytic Oxidizer, CD4303 Catalytic Oxidizer, CD4304 Catalytic Oxidizer, CD4305 Catalytic Oxidizer, CD4306 Catalytic Oxidizer

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Temperature ≥ 550 and Temperature $\leq 1,250$ degrees F at Inlet of the Catalyst. [N.J.A.C. 7:27-22.16(a)]	Temperature: Monitored by temperature instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Temperature: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
2	Temperature at Exit of Catalyst $\leq 1,350$ degrees F, except during start up and shutdown periods. [N.J.A.C. 7:27-22.16(a)]	Temperature at Exit of Catalyst: Monitored by temperature instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Temperature at Exit of Catalyst: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
3	The catalyst array(s) shall be maintained and replaced in accordance with the recommendations of the manufacturer. [N.J.A.C. 7:27-22.16(a)]	Other: Monitored based on Catalyst Manufacturer's Specification which shall be maintained on-site.[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 date and time of each instance of catalyst maintenance or replacement. [N.J.A.C. 7:27-22.16(o)]	None.
4	Catalyst Volume ≥ 1.39 Ft ³ for each control device (CD4301-4306). [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.
5	Design Control Efficiency ≥ 75 % VOC; 90% CO; 78% Formaldehyde. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Maintain records of the design control efficiency.[N.J.A.C. 7:27-22.16(o)].	None.

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

Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines

Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations: 40 CFR 63 Subpart A 40 CFR 63 Subpart ZZZZ 40 CFR 60 Subpart A 40 CFR 60 Subpart JJJJ [40 CFR Federal Rules Summary]	None.	None.	None.
2	<p>STACK TESTING SUMMARY The permittee shall conduct a stack test using a protocol approved by the Department to demonstrate compliance with emission limits for VOC, NOx, CO, Acrolein and Formaldehyde as specified in the compliance plan for U43:OS5, 6, 11 & 12. Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.</p> <p>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)]</p>	<p>Other: The stack test must be conducted either 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.</p> <p>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.</p> <p>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)].</p>	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 within 60 days from the date of the approved 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.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and. [N.J.A.C. 7:27-22.18(h)]</p>

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	<p>STACK TESTING SUMMARY</p> <p>The permittee shall conduct a stack test no later than every five years (see General Provisions) from the last stack test using an approved protocol to demonstrate compliance with emission limits for NO_x, CO as specified in the compliance plan for U43:OS1 through 12.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition.</p> <p>[N.J.A.C. 7:27-22.16(a)]</p>	<p>Other: Monitoring as required under the applicable operating scenario(s).</p> <p>[N.J.A.C. 7:27-22.16(o)].</p>	<p>Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].</p>	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 12 months prior to the completion of the five year period since the last stack test. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT), unless another format is approved by EMS. The ERT program can be downloaded at: 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.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and . [N.J.A.C. 7:27-22.18(h)]</p>

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>PERIODIC STACK TESTING SUMMARY</p> <p>The permittee shall conduct a periodic stack test as required by 40 CFR 60 Subpart JJJJ using a protocol approved by the Department to demonstrate compliance with emission limits for VOC, NO_x, CO as specified in the compliance plan for OS5, OS6, OS11 and OS12.</p> <p>Testing must be conducted at worst-case permitted operating conditions with regard to meeting the applicable emission standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)]</p>	Other: Monitoring as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	Other: Recordkeeping as required under the applicable operating scenario(s). [N.J.A.C. 7:27-22.16(o)].	<p>Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Emission Measurement Section (EMS) at Mail Code: 09-01, PO Box 420, Trenton, NJ 08625 no later than 180 days prior to the testing due date or request from EMS, in writing, to use a previously approved protocol no later than 90 days prior to the testing due date. The protocol and test report must be prepared and submitted on a CD using the Electronic Reporting Tool (ERT) that is downloaded at: https://www.epa.gov/chief, unless another format is approved by EMS. Within 30 days of protocol approval or no less than 60 days prior to the testing deadline, whichever is later, the permittee must contact EMS at 609-984-3443 to schedule a mutually acceptable test date.</p> <p>A full stack test report must be submitted to EMS and a certified summary test report must be submitted to the Regional Enforcement Office within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]</p>

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>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.</p> <p>[N.J.A.C. 7:27-16.10(e)] and [N.J.A.C. 7:27-19.8(f)]</p>	<p>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.</p> <p>[N.J.A.C. 7:27-19.16(g)]</p>	<p>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:</p> <p>1. The date and times the adjustment began and ended; 2. The name, title, and affiliation of the person who performed the procedure and adjustment; 3. The type of procedure and maintenance performed; 4. The concentration of NO_x, 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.</p> <p>The records shall be kept for a minimum of 5 years and be readily accessible to the Department upon request.</p> <p>[N.J.A.C. 7:27-19.16(h)]</p>	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	<p>The permittee shall perform Periodic Monitoring Procedure (PMP) tests to ensure the reciprocating engine(s) are operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions.</p> <p>[N.J.A.C. 7:27-22.16(a)]</p>	<p>Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year The minimum duration between Periodic Monitoring Procedure (PMP) tests shall be 45 calendar days. PMP tests are only required if the equipment operated during the monitoring period. The permittee shall measure the concentrations in the effluent stream of NOx, CO and O2 and convert them to units of pounds per hour (lb/hr) in accordance with Technical Manual 1005. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event The permittee shall maintain the following records: 1. Date of periodic emission monitoring; 2. Equipment, Emission Unit and Operating Scenario number; 3. Measured concentrations of NOx and CO (ppmvd) and O2 (%); 4. Calculated emissions of NOx and CO (lb/hr and g/bhp-hr); 5. A description of any corrective action taken; 6. Results from any subsequent measurements performed after taking any corrective action, including concentrations and calculated emission values in pounds per hour and grams per brake horsepower hour. If the equipment did not operate during a monitoring period, record "Did not operate" for that period. [N.J.A.C. 7:27-22.16(o)]</p>	<p>Other (provide description): Other If either of the NOx or CO PMP test results exceed the lb/hr or g/bhp-hr permit limits ("exceedance"), the frequency of PMP testing immediately becomes monthly, and the permittee shall: 1. Take corrective action or cease operation within 15 minutes of the exceedance. 2. Notify the Department within 24 hours of the exceedance by calling the Environmental Action Hotline at (877) 927-6337. 3. Submit a report within 30 days of the exceedance for all periodic emission monitoring performed in the 12 months prior to this exceedance with the items listed in 1-6 of the Recordkeeping Requirement to the Central Regional Enforcement Office, Mail Code 22-03A, 401 East State Street, PO Box 420, Trenton, NJ 08625-0420. 4. Retest the equipment within 24 hours of completing corrective action or restarting operation, whichever is sooner. 5. Repeat the steps above until the exceedance has been eliminated or the equipment is removed from service; and 6. Submit a report within 30 days of completing corrective action (Step 5) for the test that showed the exceedance and each subsequent test performed following corrective action with the items listed in 1-6 of the Recordkeeping Requirement to the Central Regional Enforcement Office; and 7. Submit a permit modification application within 30 days of the exceedance to change the PMP testing back to the Initial Frequency. [N.J.A.C. 7:27-22.16(o)]</p>
7	<p>Opacity <= 20 % , exclusive of visible condensed water vapor, from the combustion of fuel in any stationary internal combustion engine except for a period of not longer than 10 consecutive seconds. . [N.J.A.C. 7:27- 3.5]</p>	None.	None.	None.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NOx (Total) <= 0.9 grams/brake horsepower-hour for an engine commencing operation on or after March 7, 2007. [N.J.A.C. 7:27-19.8(e)2]	None.	None.	None.
9	CO <= 500 ppmvd @ 15% O2 for each Rice Engine (E4301 through E4306). Including start up and shut down. [N.J.A.C. 7:27-16.10(b)]	None.	None.	None.
10	Particulate Emissions <= 5 lb/hr for each of the Rice engines (E4301 through E4306). Particulate emission limit from the combustion of fuel based on the rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
11	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. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	The mass emission rates apply at all times including start up and shut down. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Electrical Output <= 878 Kilowatts. The Electrical Output shall be less than or equal to electrical output in kilowatts. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	For each control device (CD4301 through CD4306), the control device shall be operated at all times that the engine is operating, except for start up and shut down. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Maximum Gross Heat Input <= 9.3 MMBTU/hr (HHV) to each RICE engine. [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records of manufacturer documentation or engineering calculations showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
16	VOC (Total) <= 9.92 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by calculations annually, based on one calendar year. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	NOx (Total) <= 35.5 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by calculations annually, based on one calendar year. [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.
18	CO <= 21.7 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by calculations annually, based on one calendar year. [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.
19	TSP <= 3.94 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by calculations annually, based on one calendar year. [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
20	PM-10 (Total) <= 3.94 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by calculations annually, based on one calendar year. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system annually. [N.J.A.C. 7:27-22.16(o)]	None.
21	PM-2.5 (Total) <= 3.94 tons/yr based on emission limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Methane <= 401 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	HAPs (Total) <= 3.87 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	Formaldehyde <= 3.1 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	Formaldehyde: Monitored by calculations each month during operation, based on a consecutive 12 month period (rolling 1 month basis). [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The permittee shall record the calculated formaldehyde emissions for the month, as well as the sum of the formaldehyde emissions for the month with the emissions for the previous eleven months in a log book or computer records. [N.J.A.C. 7:27-22.16(o)]	None.
25	Ethylene dibromide <= 0.00252 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
26	Naphthalene <= 0.00424 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
27	Acetaldehyde <= 0.476 tons/yr based on the fuel usage limits. [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
28	Acrolein <= 0.293 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
29	Benzene <= 0.0251 tons/yr based on the fuel usage limits. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Facility Specific Requirements**

Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines**Operating Scenario:** OS1 RICE Engine 1 Digester Gas, OS2 RICE Engine 2 Digester Gas, OS3 RICE Engine 4 Digester Gas, OS4 RICE Engine 5 Digester Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	SO ₂ ≤ 2,000 ppmvd. [N.J.A.C. 7:27-7.2(b)1]	None.	None.	None.
2	SO ₂ ≤ 15 lb per any 60-minute period. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.
3	SO ₂ ≤ 30 lb/hr at any instant. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.
4	Engine fuel is limited to digester gas in this operating scenario. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Hours of Operation ≤ 28,800 hours per any consecutive 12 month period for engines 1-4 combined for both digester gas and natural gas combined. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Hours for any 12 consecutive months is computed by adding the hours in a given month to that during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
6	VOC (Total) ≤ 0.453 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
7	NO _x (Total) ≤ 121 ppmvd @ 15% O ₂ . [N.J.A.C. 7:27-22.16(e)]	NO _x (Total): Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- see quarterly monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NOx (Total) <= 0.7 grams/brake horsepower-hour. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	NOx (Total) <= 2.46 lb/MW-hr. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
10	CO <= 0.99 lb/hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	CO <= 111 ppmvd @ 15% O ₂ . [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- see quarterly monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
12	CO <= 1.38 lb/MW-hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
13	SO ₂ < 0.05 lb/hr (below reporting threshold). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	TSP <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	PM-10 (Total) <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	PM-2.5 (Total) <= 0.18 lb/hr based on the emission limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Methane <= 18.2 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
18	Acetaldehyde <= 0.0217 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Acrolein <= 0.0134 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Formaldehyde <= 0.14 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	Benzene <= 0.00114 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Ethylene dibromide <= 0.000115 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Naphthalene <= 0.000194 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
24	No owner or operator subject to the provisions of MACT Subpart A in 40 CFR 63 shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. (MACT Subpart A) [40 CFR 63.4(b)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.(MACT Subpart A) [40 CFR 63.4(c)]	None.	None.	None.
26	The owner or operator of an affected source shall conduct monitoring as specified in the relevant standard, unless otherwise specified by the Administrator.(MACT Subpart A) [40 CFR 63.8(b)(1)]	None.	None.	None.
27	The owner or operator of an affected source shall notify the Administrator that the source becomes subject to a relevant standard. The notification shall include the information as specified in 40 CFR 63.9(b)(2).(MACT Subpart A) [40 CFR 63.9(b)(2)]	None.	Recordkeeping by other recordkeeping method (provide description) upon occurrence of event. Notification records shall be maintained and recorded in a form suitable and readily available for expeditious inspection and review for at least 5 years following the date of each record. At minimum, the most recent two years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on a computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR 63.10(b)(1)]	Submit notification: As per the approved schedule. Within 120 calendar days after the source becomes subject to the relevant standard, if initial startup of the affected source is before the effective date of the standard. [40 CFR 63.9(b)(2)]

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	General recordkeeping requirements. The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63 recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. The owner or operator shall maintain relevant records per 40 CFR 63.10(b)(2) and 40 CFR 63.10(c).(MACT Subpart A) [40 CFR 63.10(b)(1)]	None.	None.	None.
29	During startup and shutdown, the owner or operator shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.(MACT Subpart ZZZZ) [40 CFR 63.6603(a)]	None.	None.	None.
30	The engine must be in compliance with all applicable emission limitations, operating limitations, and other requirements in Subpart ZZZZ of 40 CFR 63 at all times.(MACT Subpart ZZZZ) [40 CFR 63.6605(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
31	At all times the owner or operator must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.(MACT Subpart ZZZZ) [40 CFR 63.6605(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6660]	None.
32	The permittee shall conduct an initial demonstration and subsequent annual demonstrations to show that the average CO reduction is $\geq 93\%$, or the average CO concentration ≤ 47 ppmvd @15% O ₂ , as specified in Table 5 and Table 6 in 40 CFR 63 Subpart ZZZZ. (MACT Subpart ZZZZ) [40 CFR 63.6630(e)] and [40 CFR 63.6640(c)]	Monitored by periodic emission monitoring annually. The permittee must measure CO emissions using one of the measurement methods specified in Table 4 of 40 CFR 63 Subpart ZZZZ, or using appendix A to 40 CFR 63 Subpart ZZZZ, and must measure O ₂ emissions using one of the measurement methods specified in Table 4 of 40 CFR 63 Subpart ZZZZ. Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration. [40 CFR 63.6630(e)] and [40 CFR 63.6640(c)]	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The permittee must keep records in a form suitable and readily available (in hard copy or electronic form) for expeditious review. According to 40 CFR 63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record except that the most recent 2 years of data do not have to be retained on site, per Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6660]	Repair equipment: Upon occurrence of event. If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ, the RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ. If the retest shows that the emissions continue to exceed the specified levels, the RICE must again be shut down as soon as safely possible, and the RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6640(c)(7)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
33	The owner or operator must submit compliance reports semiannually according to the requirements in 40 CFR 63.6650(b)(1) through (5).(MACT Subpart ZZZZ) [40 CFR 63.6650(b)]	None.	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. The permittee must keep: (1) A copy of each notification and report submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status, according to the requirement in 40 CFR 63.10(b)(2)(xiv); (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment; (3) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii); (4) Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655]	Submit a report: Semi-annually on January 31 and July 31 of each year to the EPA Administrator Region 2 and NJDEP Regional Enforcement Office. The first Compliance report must cover the period beginning on October 19, 2013 and ending June 30, 2014. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. The report must contain the results of the annual compliance demonstration if conducted during the reporting period. For sources subject to permitting regulations pursuant to 40 CFR part 70, the permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established. [40 CFR 63.6650(b)]
34	The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing non-emergency non-black start SI RICE > 500 HP constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions.(MACT Subpart ZZZZ) [40 CFR 63.6665]	None.	None.	None.

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Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines

Operating Scenario: OS5 Rice Engine 3 Digester Gas, OS6 Rice Engine 6 Digester Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	SO ₂ ≤ 2,000 ppmvd. [N.J.A.C. 7:27-7.2(b)1]	None.	None.	None.
2	SO ₂ ≤ 42 lb per any 60-minute period. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.
3	SO ₂ ≤ 84 lb/hr at any instant. [N.J.A.C. 7:27- 7.2(b)2]	None.	None.	None.
4	Hours of Operation ≤ 7,500 hr/yr per engine per any consecutive 12 month period for both digester gas and natural gas combined. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Hours for any 12 consecutive months is computed by adding the hours in a given month to that during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
5	Engine fuel is limited to digester gas in this operating scenario. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	VOC (Total) ≤ 0.453 lb/hr based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [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 quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. [N.J.A.C. 7:27- 8.4(f)5]
7	NO _x (Total) ≤ 121 ppmvd @ 15% O ₂ based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	NO _x (Total): Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing once initially and every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NO _x (Total): 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- see quarterly monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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**New Jersey Department of Environmental Protection
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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	NOx (Total) <= 0.7 grams/brake horsepower-hour based on stack test TST090001. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	NOx (Total) <= 2.46 lb/MW-hr based on stack test TST090001. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
10	CO <= 0.99 lb/hr based on manufacturer's data. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	CO <= 111 ppmvd @ 15% O2 based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing once initially and every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- see quarterly monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
12	CO <= 1.38 lb/MW-hr based on manufacturer's data. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
13	SO2 <= 0.05 lb/hr (below reporting threshold). [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
14	TSP <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	PM-10 (Total) <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	PM-2.5 (Total) <= 0.18 lb/hr based on the emission limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Methane <= 18.2 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Acetaldehyde <= 0.0217 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Acrolein <= 0.0134 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by stack test results once initially. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
20	Formaldehyde <= 0.14 lb/hr based on AP-42 emissions factors. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
21	Benzene <= 0.00114 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
22	Ethylene dibromide <= 0.000115 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
23	Naphthalene <= 0.000194 lb/hr based on AP-42 emissions factors. [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
24	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]
25	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]
26	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(1)]
27	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(3)]

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	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)]
29	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.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	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)]
31	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.
32	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.
33	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.
34	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.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
35	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.
36	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.
37	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.
38	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	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.
40	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.
41	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.
42	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.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
43	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.
44	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)]
45	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.
46	A new or reconstructed stationary RICE located at an area HAP source must meet the requirements of 40 CFR 63 by meeting the requirements of 40 CFR 60 subpart IIII, for compression ignition engines or 40 CFR 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63. [40 CFR 63.6590(c)]	Other: Comply with all applicable provisions at NSPS JJJJ. [40 CFR 63].	Other: Comply with all applicable provisions at NSPS JJJJ. [40 CFR 63].	None.

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Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines

Operating Scenario: OS7 RICE Engine 1 Natural Gas, OS8 RICE Engine 2 Natural Gas, OS9 RICE Engine 4 Natural Gas, OS10 RICE Engine 5 Natural Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 5 lb/hr based on the table at N.J.A.C. 7:27-4.2(a). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	Engine fuel limited to natural gas for this operating scenario. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Hours of Operation <= 28,800 hours per any consecutive 12 month period for engines 1-4 combined for both digester gas and natural gas combined. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by fuel flow/firing rate instrument continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Fuel use for any 12 consecutive months is computed by adding the fuel consumed in a given month to that consumed in the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
4	VOC (Total) <= 0.453 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	NOx (Total) <= 0.7 grams/brake horsepower-hour. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
6	NOx (Total) <= 114 ppmvd @ 15% O ₂ . [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- See periodic monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	NOx (Total) <= 2.32 lb/MW-hr. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	CO <= 0.99 lb/hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	CO <= 111 ppmvd @ 15% O ₂ . [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly Monitoring-See periodic monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
10	CO <= 1.38 lb/MW-hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing every 5 years (based on completion date of the last stack test), based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	TSP <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-10 (Total) <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-2.5 (Total) <= 0.18 lb/hr based on the emission limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Methane <= 18.3 lb/hr. [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
15	Acetaldehyde <= 0.0217 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Acrolein <= 0.0134 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
17	Benzene <= 0.00114 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
18	Formaldehyde <= 0.14 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Ethylene dibromide <= 0.000115 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Naphthalene <= 0.000194 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
21	No owner or operator subject to the provisions of MACT Subpart A in 40 CFR 63 shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to: (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. (MACT Subpart A) [40 CFR 63.4(b)]	None.	None.	None.
22	The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.(MACT Subpart A) [40 CFR 63.4(c)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	The owner or operator of an affected source shall conduct monitoring as specified in the relevant standard, unless otherwise specified by the Administrator.(MACT Subpart A) [40 CFR 63.8(b)(1)]	None.	None.	None.
24	The owner or operator of an affected source shall notify the Administrator that the source becomes subject to a relevant standard. The notification shall include the information as specified in 40 CFR 63.9(b)(2).(MACT Subpart A) [40 CFR 63.9(b)(2)]	None.	Recordkeeping by other recordkeeping method (provide description) upon occurrence of event. Notification records shall be maintained and recorded in a form suitable and readily available for expeditious inspection and review for at least 5 years following the date of each record. At minimum, the most recent two years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on a computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR 63.10(b)(1)]	Submit notification: As per the approved schedule. Within 120 calendar days after the source becomes subject to the relevant standard, if initial startup of the affected source is before the effective date of the standard. [40 CFR 63.9(b)(2)]
25	General recordkeeping requirements. The owner or operator shall maintain files of all information (including all reports and notifications) required by 40 CFR 63 recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. The owner or operator shall maintain relevant records per 40 CFR 63.10(b)(2) and 40 CFR 63.10(c).(MACT Subpart A) [40 CFR 63.10(b)(1)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	During startup and shutdown, the owner or operator shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.(MACT Subpart ZZZZ) [40 CFR 63.6603(a)]	None.	None.	None.
27	The engine must be in compliance with all applicable emission limitations, operating limitations, and other requirements in Subpart ZZZZ of 40 CFR 63 at all times.(MACT Subpart ZZZZ) [40 CFR 63.6605(a)]	None.	None.	None.
28	At all times the owner or operator must operate and maintain a RICE including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.(MACT Subpart ZZZZ) [40 CFR 63.6605(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6660]	None.

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**New Jersey Department of Environmental Protection
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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
29	The permittee shall conduct an initial demonstration and subsequent annual demonstrations to show that the average CO reduction is $\geq 93\%$, or the average CO concentration ≤ 47 ppmvd @15% O ₂ , as specified in Table 5 and Table 6 in 40 CFR 63 Subpart ZZZZ.(MACT Subpart ZZZZ) [40 CFR 63.6630(e)] and [40 CFR 63.6640(c)]	Monitored by periodic emission monitoring annually. The permittee must measure CO emissions using one of the measurement methods specified in Table 4 of 40 CFR 63 Subpart ZZZZ, or using appendix A to 40 CFR 63 Subpart ZZZZ, and must measure O ₂ emissions using one of the measurement methods specified in Table 4 of 40 CFR 63 Subpart ZZZZ. Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration. [40 CFR 63.6630(e)] and [40 CFR 63.6640(c)]	Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The permittee must keep records in a form suitable and readily available (in hard copy or electronic form) for expeditious review. According to 40 CFR 63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, except that the most recent 2 years of data do not have to be retained on site, per Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6660]	Repair equipment: Upon occurrence of event. If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ, the RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ. If the retest shows that the emissions continue to exceed the specified levels, the RICE must again be shut down as soon as safely possible, and the RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6640(c)(7)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
30	The owner or operator must submit compliance reports semiannually according to the requirements in 40 CFR 63.6650(b)(1) through (5).(MACT Subpart ZZZZ) [40 CFR 63.6650(b)]	None.	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. The permittee must keep: (1) A copy of each notification and report submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status, according to the requirement in 40 CFR 63.10(b)(2)(xiv); (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment; (3) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii); (4) Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655]	Submit a report: Semi-annually on January 31 and July 31 of each year to the EPA Administrator Region 2 and NJDEP Regional Enforcement Office. The first Compliance report must cover the period beginning on October 19, 2013 and ending June 30, 2014. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. The report must contain the results of the annual compliance demonstration if conducted during the reporting period. For sources subject to permitting regulations pursuant to 40 CFR part 70, the permittee may submit the first and subsequent Compliance reports according to the dates the permitting authority has established. [40 CFR 63.6650(b)]
31	The owner or operator shall comply with the General Provisions as shown in Table 8 to Subpart ZZZZ of 40 CFR 63 that apply to an existing non-emergency non-black start SI RICE > 500 HP constructed or reconstructed before June 12, 2006 and located at an area source of HAP emissions.(MACT Subpart ZZZZ) [40 CFR 63.6665]	None.	None.	None.

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Facility Specific Requirements**

Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines

Operating Scenario: OS11 Rice Engine 3 Natural Gas, OS12 Rice Engine 6 Natural Gas

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 5 lb/hr based on the table at N.J.A.C. 7:27-4.2(a). [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	Hours of Operation <= 7,500 hr/yr per engine per any consecutive 12 month period for both digester gas and natural gas combined. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. Hours for any 12 consecutive months is computed by adding the hours in a given month to that during the preceding 11 months. [N.J.A.C. 7:27-22.16(o)]	None.
3	Engine fuel limited to natural gas for this operating scenario. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	VOC (Total) <= 0.453 lb/hr based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	VOC (Total): Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	VOC (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
5	NOx (Total) <= 0.7 grams/brake horsepower-hour based on stack test TST090001. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [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
6	NOx (Total) <= 114 ppmvd @ 15% O2 based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing once initially every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by manual logging of parameter or storing data in a computer data system quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly monitoring- See periodic monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
7	NOx (Total) <= 2.32 lb/MW-hr based on stack test TST090001. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
8	CO <= 0.99 lb/hr based on manufacturer's data. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
9	CO <= 111 ppmvd @ 15% O2 based on manufacturer's data. [N.J.A.C. 7:27-22.16(a)]	CO: Monitored by periodic emission monitoring quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. Monitored by stack emission testing once initially every 5 years (based on the completion date of the last stack test), based on each of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: 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. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. Quarterly Monitoring-See periodic monitoring requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	CO <= 1.38 lb/MW-hr based on manufacturer's data. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	CO: Recordkeeping by stack test results once initially and every 5 years (based on completion date of the last stack test). See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
11	TSP <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	PM-10 (Total) <= 0.18 lb/hr based on stack test TST090001. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-2.5 (Total) <= 0.18 lb/hr based on the emission limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Methane <= 18.3 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Acetaldehyde <= 0.0217 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Acrolein <= 0.0134 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	Acrolein: Monitored by stack emission testing once initially, based on the average of three Department validated stack test runs. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Acrolein: Recordkeeping by stack test results once initially. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
17	Formaldehyde <= 0.14 lb/hr based on AP-42 emissions factors. [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 the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Formaldehyde: Recordkeeping by stack test results once initially. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See the stack testing requirements in OS Summary. [N.J.A.C. 7:27-22.16(o)]
18	Benzene <= 0.00114 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
19	Ethylene dibromide <= 0.000115 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
20	Naphthalene <= 0.000194 lb/hr based on AP-42 emissions factors. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]
22	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]
23	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the date of construction or reconstruction of an affected facility as defined under 40 CFR Part 60 Subpart A. Notification shall be postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(1)]
24	The owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, of the actual date of initial startup of an affected facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]	None.	None.	Submit notification: Upon occurrence of event to EPA Region 2 and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(3)]

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
25	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)]
26	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.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
27	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)]
28	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.
29	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.
30	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.
31	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.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
32	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.
33	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.
34	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.
35	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]	None.	None.	None.

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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
36	The owner or operator of a new non-certified SI ICE lean burn natural gas or LPG with a maximum engine power of 500 <= HP < 1350 (375 <= kW < 1010) manufactured after July 1, 2010 must meet the emission standards for engines 500<= HP< 1350 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 Department validated stack test runs. The permittee shall conduct an initial performance test and conduct subsequent performance testing every 8760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, per 40 CFR 60.4243(b)(2)(ii). Each performance test must be conducted according to the requirements in 40 CFR 60.8 and 40 CFR 60.4244 and under the specific conditions specified in Table 2 to 40 CFR 60 Subpart JJJJ. The tests must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and may not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). Three separate test runs for each performance test must be conducted, each test run must last at least 1 hour. Compliance with the emission limits shall be determined based on calculations in 40 CFR 60.4244(d) through (g). [40 CFR 60.4243(b)(2)]	Recordkeeping by stack test results at the approved frequency. The owner or operator of a SI ICE engine must keep documentation demonstrating compliance with the applicable emission standards. [40 CFR 60.4245(a)]	Submit a stack test report: Within 60 days of stack testing. The owner or operator of a SI ICE engine must submit the results of stack tests to EPA Region 2 and to the Regional Enforcement Office of NJDEP. [40 CFR 60.4245(d)]
37	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.
38	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.

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Facility Specific Requirements**

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
39	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.
40	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.
41	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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**New Jersey Department of Environmental Protection
Facility Specific Requirements**

Emission Unit: U43 Six 9.3 MMBtu/hr NG/DG RICE Engines**Operating Scenario:** OS13 Explosion Relief Scenario - RICE Engine #1, OS14 Explosion Relief Scenario - RICE Engine #2, OS15 Explosion Relief Scenario - RICE Engine #4, OS16 Explosion Relief Scenario - RICE Engine #5, OS17 Explosion Relief Scenario - RICE Engine #3, OS18 Explosion Relief Scenario - RICE Engine #6

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	The Cogen design was modified to include emergency relief devices in the exhaust of each engine for safety purposes and to protect the equipment in the event of an explosion. The relief device will operate (open) upon the exceedance of a certain pressure to allow exhaust gases to vent through the relief device vent stack. If this happens, the engine will shut down. [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. [N.J.A.C. 7:27-22.16(o)]	None.

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

Emission Unit: U44 Two FO Emergency Generators**Operating Scenario:** OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Summary of Applicable Federal Regulations (OS2 only): 40 CFR Part 60 Subpart A 40 CFR Part 60 Subpart IIII [40 CFR Federal Rules Summary]	None.	None.	None.
2	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.
3	Generator fuel limited to #2 fuel oil. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
4	<p>Each emergency generator shall be located at the facility and produce mechanical or thermal energy, or electrical power exclusively for use at the facility. This emergency generator shall be operated only:</p> <p>1. During the performance of normal testing and maintenance procedures, as recommended in writing by the manufacturer and/or as required in writing by a Federal or State law or regulation,</p> <p>2. When there is power outage or the primary source of mechanical or thermal energy fails because of an emergency, or when the power disruption resulted from construction, repair, or maintenance activity (CRM) at the facility. Operation of the emergency generator under construction, repair, or maintenance activity is limited to 30 days in any calendar year; or</p> <p>3. When there is a voltage reduction issued by PJM and posted on the PJM internet website (www.pjm.com) under the "emergency procedures" menu. [N.J.A.C. 7:27-19.1]</p>	<p>Monitored by hour/time monitor continuously.</p> <p>In addition, the owner or operator shall monitor, once per month, the total operating time from the generator's hour meter; hours of operation for emergency use; hours of operation for testing and maintenance; hours of operation during power disruption resulted from construction, repair and maintenance activity (CRM) at the facility; and the total fuel usage calculated by the following:</p> <p>Fuel Usage (Gallons per month) = (Hours of operation per month) x (Maximum emergency generator fuel usage rate in gallons per hour).</p> <p>Hours of operation for emergency use (per month) = (The monthly total operating time from the generator's hour meter) - (The monthly total operating time for testing and maintenance) – (The monthly total operating time due to power disruption resulted from construction, repair, or maintenance activity not counting operation during the performance of normal testing and maintenance procedures). [N.J.A.C. 7:27-22.16(o)]</p>	<p>Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. Record the following information:</p> <p>1. Once per month, the total operating time from the generator's hour meter, the fuel usage (gallons per month), and the monthly hours of operation for emergency use and during power disruption from CRM. Document if the emergency use was due to internal or external loss of primary source of energy, or due to a fire or flood. If internal loss at the facility, document the emergency and/or CRM that occurred, the damages to the primary source of energy and the amount of time needed for repairs.</p> <p>2. For each time the emergency generator is specifically operated for testing or maintenance:</p> <ul style="list-style-type: none"> 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 <p>3. If a voltage reduction is the reason for the use of the emergency generator, a copy of the voltage reduction notification from PJM or other documentation of the voltage reduction.</p> <p>The owner or operator of shall maintain the above records for at least 5 years after the record was made and shall make the records readily available to the Department or the EPA. [N.J.A.C. 7:27-22.16(o)] and [N.J.A.C. 7:27-19.11]</p>	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	<p>This emergency generator shall not be used:</p> <p>1. For normal testing and maintenance on days when the Department forecasts air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," or "very unhealthy" as defined in the EPA's Air Quality Index at 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</p> <p>2. As a source of energy or power after the primary energy or power source has become operable again after emergency or after power disruption resulted from construction, repair, or maintenance activity. Operation of the emergency generator during construction, repair, or maintenance activity shall be limited to no more than 30 days of operation per calendar year. If the primary energy or power source is under the control of the owner or operator of the emergency generator, the owner or operator shall make a reasonable, timely effort to repair the primary energy or power source. [N.J.A.C. 7:27-19.2(d)]</p>	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Hours of Operation <= 50 hr/yr per generator, for testing and maintenance. The limit on the allowable hours for testing and maintenance in accordance with the documentation from manufacturer, the vendor, or the insurance company associated with the engine. [N.J.A.C. 7:27-22.16(a)]	Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(o)]	Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator shall maintain on site and record the following information: For each time the emergency generator is specifically operated for testing or maintenance: i. The reason for its operation; ii. The date(s) of operation and the start up and shut down time; iii. The total operating time for testing or maintenance based on the generator's hour meter; and iv. The name of the operator. [N.J.A.C. 7:27-19.11]	None.
7	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.
8	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.
9	VOC (Total) <= 0.054 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	NOx (Total) <= 0.66 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	CO <= 0.143 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
12	TSP <= 0.047 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	PM-10 (Total) <= 0.047 tons/yr based on the permitted hours of operation per year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	PM-2.5 (Total) <= 0.047 tons/yr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U44 Two FO Emergency Generators**Operating Scenario:** OS1 230 KW Emergency Generator - P&O Bldg

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 1.62 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	Maximum Gross Heat Input <= 2.7 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
3	VOC (Total) <= 0.97 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	NOx (Total) <= 11.9 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 2.57 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 0.84 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 0.84 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-2.5 (Total) <= 0.84 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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

Emission Unit: U44 Two FO Emergency Generators**Operating Scenario:** OS2 275 KW Emergency Generator - New Lab

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Particulate Emissions <= 1.98 lb/hr. Particulate emission limit from the combustion of fuel based on rated heat input of source. [N.J.A.C. 7:27- 4.2(a)]	None.	None.	None.
2	Maximum Gross Heat Input <= 3.3 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	Other: Keep records showing maximum heat input rate.[N.J.A.C. 7:27-22.16(o)].	None.
3	VOC (Total) <= 1.18 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	NOx (Total) <= 14.5 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	CO <= 3.13 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	TSP <= 1.02 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	PM-10 (Total) <= 1.02 lb/hr based on AP-42 emissions factor. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
8	PM-2.5 (Total) <= 1.02 lb/hr based on the emissions limit of PM-10. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	All requests, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to: Director, Division of Enforcement & Compliance Assistance, US EPA, Region 2, 290 Broadway, New York, NY 10007-1866. (NSPS Subpart A) [40 CFR 60.4(a)]	None.	None.	Submit a report: As per the approved schedule to EPA Region 2 as required by 40 CFR 60. [40 CFR 60.4(a)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	Copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the appropriate Regional Enforcement Office of NJDEP. (NSPS Subpart A) [40 CFR 60.4(b)]	None.	None.	Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4(b)]
11	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. (NSPS Subpart A) [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)]
12	The owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution control equipment or any periods during which continuous monitoring system or monitoring device is inoperative. (NSPS Subpart A) [40 CFR 60.7(b)]	None.	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operation and maintenance procedures, and inspection of the source. (NSPS Subpart A) [40 CFR 60.11(d)]	None.	None.	None.
14	No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (NSPS Subpart A) [40 CFR 60.12]	None.	None.	None.
15	The owner or operator shall notify the Administrator of the proposed replacement of components, upon triggering reconstruction as defined at 40 CFR 60.15. (NSPS Subpart A) [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)]

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. (NSPS Subpart A) [40 CFR 60.19]	None.	None.	None.
17	The owner or operator of a pre-2007 model year emergency generator with a displacement of < 10 liters per cylinder and a maximum engine power of equal to or more than 175 HP (\geq 130 kW) must comply with the emissions standards in table 1 to NSPS IIII as follows: NO _x \leq 6.9 g/HP-hr, HC \leq 1.0 g/HP-hr, CO \leq 8.5 g/HP-hr, PM \leq 0.40 g/HP-hr. (NSPS Subpart IIII) [40 CFR 60.4205(a)]	None.	Other: The owner or operator of a pre 2007 model year engine must keep documentation demonstrating compliance with the applicable emission standards, for the same model year and maximum engine power. [40 CFR 60.4211].	None.
18	Beginning October 1, 2010, the CI internal combustion engines with a displacement of less than 30 liters per cylinder subject to NSPS IIII (manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005) that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 that contains the following per gallon standards: 15 ppm (0.0015 percent) maximum sulfur content and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. (NSPS Subpart IIII) [40 CFR 60.4207(b)]	Monitored by review of fuel delivery records once per bulk fuel shipment. For each diesel delivery received, the owner or operator shall review written documentation of the delivery to ensure the maximum allowable fuel oil sulfur content and either a minimum cetane index or a maximum aromatic content is not being exceeded. Such written documentation can include, but is not limited to: bill of lading, delivery invoice, certificate of analysis. [N.J.A.C. 7:27- 8.13(d)]	Recordkeeping by invoices / bills of lading / certificate of analysis once per bulk fuel shipment. The owner or operator shall keep records of fuel showing oil sulfur content and either a minimum cetane index or a maximum aromatic content for each delivery received. All records must be maintained for a minimum of 2 years following the date of such records per 40 CFR 60.7(f). [N.J.A.C. 7:27- 8.13(d)]	None.

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	The owner or operator that must comply with the emission standards specified in NSPS IIII must operate and maintain the stationary CI internal combustion engine and control device, except as permitted under 40 CFR 60.4211(g), according to the manufacturer's emission-related written instructions. In addition, owners and operators may only change emission-related settings that are permitted by the manufacturer. The owner or operator must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable. If the engine and control device is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as prescribed at 40 CFR 60.4211(g)(1), (2) or (3) depending on the maximum engine power. (NSPS Subpart IIII) [40 CFR 60.4211(a)]	None.	Other: The owner or operator shall keep the manufacturer's emission-related written instructions. If not complying with manufacturer's emission-related written instructions or emission-related settings, the owner or operator shall must keep a maintenance plan, records of conducted maintenance, and conduct a performance test(s), as prescribed at 40 CFR 60.4211(g). [40 CFR 60.4211].	None.
20	The owner or operator of a pre 2007 model year engine which was manufactured after April 1, 2006 must comply with emissions standards in 40 CFR 60.4204(a) or 60.4205(a) and must demonstrate compliance by purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. (NSPS Subpart IIII) [40 CFR 60.4211(b)(1)]	None.	Other: The owner or operator must keep documentation from the manufacturer, for the life of the equipment, that the engine is certified to meet the emission standards. [40 CFR 60.4211(b)(1)].	None.

BOP180002

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

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Emergency stationary internal combustion engines may be operated for the purpose of maintenance checks and readiness testing limited to 100 hours per year, provided that those tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. (NSPS Subpart IIII) [40 CFR 60.4211(f)(2)(i)]	Monitored by hour/time monitor continuously. The owner or operator of an emergency stationary internal combustion engine that does not meet the standards applicable to non-emergency engines must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. The owner or operator must record the time of operation of the emergency engine and the reason the engine was in operation during that time. Starting with the model year 2011, 2012, or 2013, depending on the maximum engine power as provided in Table 5 in NSPS IIII, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter if the emergency engine does not meet the standards in 40 CFR 60.4204, applicable to non-emergency engines, in the applicable model year. The emergency engine must comply with the labeling requirements in 40 CFR 60.4210(f). [40 CFR 60.4214(b)]	None.
22	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. (NSPS Subpart IIII) [40 CFR 63.6590(c)]	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	Other: Comply with all applicable provisions at NSPS IIII. [40 CFR 63].	None.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): JOINT MEETING OF ESSEX & UNION CO **Facility ID (AIMS):** 41813

Street JOINT MEETING OF ESSEX & UNION
Address: COUNTIES
 500 SOUTH FIRST ST
 ELIZABETH, NJ 07202

Mailing JOINT MEETING OF ESSEX & UNION
Address: COUNTIES
 500 SOUTH FIRST ST
 ELIZABETH, NJ 07202

County: Union
Location Municipal Wastewater Treatment Plant
Description:

State Plane Coordinates:	
X-Coordinate:	2,129,000
Y-Coordinate:	659,000
Units:	Feet
Datum:	NAD27
Source Org.:	Address Match
Source Type:	Hard Copy Map

Industry:	
Primary SIC:	4952
Secondary SIC:	
NAICS:	221320

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: N/A

Org. Type: Municipal

Name: STEPHEN T. PASCUCCI, P.E.

NJ EIN: 00226002146

Title: CHEMICAL ENGINEER

Phone: (908) 353-1313 x1324

Mailing Address: 500 SOUTH FIRST STREET
ELIZABETH, NJ 07202

Fax: (908) 353-7925 x

Other: () - x

Type:

Email: SPASCUCCI@JMEUC.COM

Contact Type: Fees/Billing Contact

Organization: N/A

Org. Type: Municipal

Name: STEPHEN T. PASCUCCI, P.E.

NJ EIN: 00226002146

Title: CHEMICAL ENGINEER

Phone: (908) 353-1313 x0324

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ELIZABETH, NJ 07202

Fax: (908) 353-7925 x

Other: () - x

Type:

Email: spascucci@jmeuc.com

Contact Type: Operator

Organization: N/A

Org. Type: Municipal

Name: JOINT MEETING OF ESSEX AND UNION COUNTIE

NJ EIN: 00226002146

Title: N/A

Phone: (908) 353-1313 x

Mailing Address: 500 SOUTH FIRST STREET
ELIZABETH, NJ 07202

Fax: (908) 353-7925 x

Other: () - x

Type:

Email:

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Owner (Current Primary)

Organization: N/A

Org. Type: Municipal

Name: JOINT MEETING OF ESSEX & UNION COUNTIES

NJ EIN: 00226002146

Title: N/A

Phone: (908) 353-1313 x

Mailing Address: 500 SOUTH FIRST STREET

Fax: (908) 353-7925 x

ELIZABETH, NJ 07202

Other: () - x

Type:

Email:

Contact Type: Responsible Official

Organization: N/A

Org. Type: Municipal

Name: HANIFAJOHNSON

NJ EIN: 00226002146

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Mailing Address: 500 SOUTH FIRST STREET

Fax: (908) 353-7925 x

ELIZABETH, NJ 07202

Other: () - x

Type:

Email: hjohnson@jmeuc.com

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)
FG2	PAVED ROADS						0.480	0.090			
Total			0.000	0.000	0.000	0.000	0.480	0.090	0.000	0.00000000	0.000

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)
IS4	Heat Recover Units firing Natural Gas [< 1 MMBtu/hr max. rated heat input]	Boiler	Dryer Facility	0.028	0.234	0.100	2.000	0.028	0.028			
IS5	1,000 Gal Gas Tank 0A03, 1,000 Gal Waste Oil Tank 0A05 and Two 250-Gal Waste Oil Tanks [Capacity < 2000 gallons]	Storage Vessel	Near Primary Settling Tanks, Personnel and Lab Building	1.000								
IS7	Distillate Fuel Oil Tanks [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]	Storage Vessel	Pump and Office Building	0.000								
IS8	1,500 Gal Polymer Aging PPP Tank Vapor Pressure<0.02 psia [Capacity < 2000 gallons]	Storage Vessel	Polymer Addition System	0.062								
IS9	Water Treatment Equipment [<100 ppbw TXS and <3,500 ppbw VOC]	Other Equipment	Plantwide	13.140							13.14000000	
IS10	Two 10,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia]	Storage Vessel	Dewatering Facility	0.000								

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	Two 15,000 Gallon No. 2 Fuel Oil USTs [Temp<=350F; vapor pressure < 0.02 psia]	Storage Vessel	Powerhouse	0.001								
IS12	Two 240 cu ft Lime Day Bins [Capacity < 2,000 ft^3]	Storage Vessel	Dewatering Facility					0.300	0.300			
IS15	2,500 Gallon Polymer Mix Tank [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]	Other Equipment	Dewatering Facility	0.500								
IS16	2,590 Gallon Polymer Feed Tank [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]	Storage Vessel	Dewatering Facility	0.500								
IS17	Two 8,000 Gallon Polymer Storage Tanks [Capacity <= 10,000 gallons, Vapor Pressure < 0.02 psia]	Storage Vessel	Thickener and Digester Tanks	0.150								
IS18	Methane Gas Venting System for Dewatering Building Foundation	Soil Venting Equipment	Dewatering Facility	1.000								

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)
IS19	Parts Cleaners [<6 ft^2, open top, <=100 gal capacity, >2 gal solvents, >5% VOC content]	Cleaning Machine (Open Top: Cold)	Plant-wide	0.500								
Total				16.881	0.234	0.100	2.000	0.328	0.328	0.000	13.14000000	0.000

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

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand- Fathered	Last Mod. (Since 1968)	Equip. Set ID
E1	E1	250 HP CLEAVER BROOKS	Emergency Generator	115024	12/31/1977	No	8/1/1993	
E3	E3	WASTE GAS BURNER AND STANDBY: DIGESTER # 1	Other Equipment	035931		No	11/1/1977	
E4	E4	WASTE GAS BURNER AND STANDBY: DIGESTER # 2	Other Equipment	035931		No	11/1/1977	
E5	E5	WASTE GAS BURNER AND STANDBY: DIGESTER # 3	Other Equipment	035931		No	11/1/1977	
E6	E6	WASTE GAS BURNER AND STANDBY: DIGESTER # 4	Other Equipment	035931		No	11/1/1977	
E7	E7	190 HP - HB SMITH BOILER # 3	Boiler	035932		No	9/1/1977	
E8	E8	190 HP - HB SMITH BOILER # 4	Boiler	035932		No	9/1/1977	
E9	E9	190 HP - HB SMITH BOILER # 5	Boiler	035932		No	9/1/1977	
E14	E14	PUGMILL # 1, EF-19	Manufacturing and Materials Handling Equipment	116550		No	8/1/1993	
E15	E15	PUGMILL # 2, EF-20	Manufacturing and Materials Handling Equipment	116550		No	8/1/1993	
E16	E16	LIQUID SLUDGE STORAGE TANK, EF-21	Storage Vessel	095074		No	7/1/1993	
E17	E17	LIQUID SLUDGE STORAGE TANK, EF-22	Storage Vessel	095074		No	7/1/1993	

**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
E19	E19	125 HP - KEWANEE BOILER # 1, SDB-1	Boiler	PCP970001		No	5/14/1998	
E20	E20	125 HP - KEWANEE BOILER # 2, SDB-1	Boiler	PCP970001		No	5/14/1998	
E23	E23	LIME STORAGE SILO, LS-1	Storage Vessel	095079		No	2/1/1991	
E26	E26	CENTRATE WETWELL, CP-1	Manufacturing and Materials Handling Equipment	PCP970002		No	7/1/1993	
E27	E27	CENTRIFUGE # 1, CE-400	Manufacturing and Materials Handling Equipment	095236		No	7/1/1993	
E28	E28	CENTRIFUGE # 2, CE-401	Manufacturing and Materials Handling Equipment	095237		No	7/1/1993	
E29	E29	CENTRIFUGE # 3, CE-402	Manufacturing and Materials Handling Equipment	095238		No	7/1/1993	
E35	E35	INCLINED SCREW CONVEYOR # 1	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E36	E36	INCLINED SCREW CONVEYOR # 2	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E37	E37	INCLINED SCREW CONVEYOR # 3	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	

**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
E38	E38	REVERSING BELT CONVEYOR # 1	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E39	E39	REVERSING BELT CONVEYOR # 2	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E40	E40	INCLINED SCREW CONVEYOR # 4	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E41	E41	INCLINED SCREW CONVEYOR # 5	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E42	E42	METERING BELT CONVEYOR # 1	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E43	E43	METERING BELT CONVEYOR # 2	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E44	E44	BELT CONVEYOR # 1	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E45	E45	BELT CONVEYOR # 2	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E46	E46	REVERSING BELT CONVEYOR # 3	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	

**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
E47	E47	REVERSING BELT CONVEYOR # 4	Manufacturing and Materials Handling Equipment	PCP990001	2/1/1991	No	8/24/1998	
E48	E48	STABILIZED SLUDGE BIN # 1	Storage Vessel	PCP990001	2/1/1991	No	8/24/1998	
E49	E49	STABILIZED SLUDGE BIN # 2	Storage Vessel	PCP990001	2/1/1991	No	8/24/1998	
E50	E50	STABILIZED SLUDGE BIN # 3	Storage Vessel	PCP990001	2/1/1991	No	8/24/1998	
E51	E51	Sludge Dryer No. 2	Manufacturing and Materials Handling Equipment	PCP000001	7/15/1996	No	9/11/2000	
E52	E52	Sludge Dryer No. 3	Manufacturing and Materials Handling Equipment	PCP000002	7/15/1996	No	9/11/2000	
E53	E53	Sludge Dryer No. 1	Manufacturing and Materials Handling Equipment	PCP000003	7/15/1996	No	9/11/2000	
E54	E54	PROCESS DRAIN LIFT STATION WET WELL	Manufacturing and Materials Handling Equipment	PCP970006		No	8/24/1998	
E57	E57	WASTE GAS BURNER: SLUDGE STORAGE TANK # 1	Storage Vessel	118781		No	2/1/1995	

**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
E58	E58	WASTE GAS BURNER: SLUDGE STORAGE TANK # 2	Storage Vessel	118781		No	1/1/1994	
E61	E61	VAC-U-MAX UNIT - TRANSFER STATION	Manufacturing and Materials Handling Equipment	LOG # 01980987		No	8/19/1998	
E62	E62	ROLL COMPACTOR HOPPER # 1	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E63	E63	ROLL COMPACTOR HOPPER # 2	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E64	E64	ROLL COMPACTOR HOPPER # 3	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E65	E65	ROLL COMPACTOR # 1	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E66	E66	ROLL COMPACTOR # 2	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E67	E67	ROLL COMPACTOR # 3	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E68	E68	VIBRATING SCREEN # 1	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	

**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
E69	E69	VIBRATING SCREEN # 2	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E70	E70	VIBRATING SCREEN # 3	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E71	E71	SURGE HOPPER/TRANSPORTER # 1	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E72	E72	SURGE HOPPER/TRANSPORTER # 2	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E73	E73	SURGE HOPPER/TRANSPORTER # 3	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E74	E74	BULK STORAGE SILO # 1	Storage Vessel	LOG # 01980992		No	7/13/1998	
E75	E75	BULK STORAGE SILO # 2	Storage Vessel	LOG # 01980992		No	7/13/1998	
E76	E76	TRUCK LOAD SPOUT # 1	Manufacturing and Materials Handling Equipment	LOG # 01980992		No	7/13/1998	
E77	E77	TRUCK LOAD SPOUT # 2	Manufacturing and Materials Handling Equipment	LOG # 1980992		No	7/13/1998	
E78	GBT 1	Gravity Belt Thickener No. 1	Manufacturing and Materials Handling Equipment	PCP020001	7/1/2005	No	7/1/2005	

**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
E79	GBT 2	Gravity Belt Thickener No. 2	Manufacturing and Materials Handling Equipment	PCP020001	7/15/2005	No	7/15/2005	
E80	GBT 3	Gravity Belt Thickener No. 3	Manufacturing and Materials Handling Equipment	PCP020001	10/1/2005	No	10/1/2005	
E81	GBT Filtrate	Filtrate Wet Well	Manufacturing and Materials Handling Equipment	PCP020001	7/1/2005	No	7/1/2005	
E82	GBT 1 Cake	Cake Well No. 1	Manufacturing and Materials Handling Equipment	PCP020001	7/1/2005	No	7/1/2005	
E83	GBT 2 Cake	Cake Well No. 2	Manufacturing and Materials Handling Equipment	PCP020001	7/15/2005	No	7/15/2005	
E84	GBT 3 Cake	Cake Well No. 3	Manufacturing and Materials Handling Equipment	PCP020001	10/1/2005	No	10/1/2005	
E4301	RICE1	RICE Engine 1	Stationary Reciprocating Engine	PCP030001	11/1/2003	No		ES1
E4302	RICE2	RICE Engine 2	Stationary Reciprocating Engine	PCP030001	11/1/2003	No		ES1
E4303	RICE4	RICE Engine 4	Stationary Reciprocating Engine	PCP030001	11/1/2003	No		
E4304	RICE5	RICE Engine 5	Stationary Reciprocating Engine	PCP030001	11/1/2003	No		ES1

**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
E4305	RICE3	RICE Engine 3	Stationary Reciprocating Engine	PCP030001	1/1/2022	No		ES1
E4306	RICE6	RICE Engine 6	Stationary Reciprocating Engine		1/1/2022	No		
E4401	EMGENP&O	230 KW Emergency Generator in P&O Bldg (2.7 MMBtu/hr)	Emergency Generator		1/1/1976	No	1/1/1976	
E4402	EMGENLAB	275 KW Emergency Generator in New Laboratory Bldg (3.3 MMBtu/hr)	Emergency Generator		3/1/2008	No	3/1/2008	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E1 (Emergency Generator)
Print Date: 7/12/2023

Make:	<input type="text"/>		
Manufacturer:	<input type="text" value="Cleaver Brooks"/>		
Model:	<input type="text"/>		
Maximum rated Gross Heat Input (MMBtu/hr-HHV):	<input type="text" value="10.46"/>		
Will the equipment be used in excess of 500 hours per year?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	<input type="text" value="Emergency Boiler"/>		

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 E3 (Other Equipment)
Print Date: 7/12/2023

Make:

Manufacturer:

Model:

Equipment Type:

Digester #1

Capacity:

Units:

Description:

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

36,000 lbs Sludge Input/Day, 90,000 CF Methane Gas Storage capacity

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 E4 (Other Equipment)
Print Date: 7/12/2023

Make:

Manufacturer:

Model:

Equipment Type:

Digester #2

Capacity:

Units:

Description:

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

36,000 lbs Sludge Input/Day, 90,000 CF Methane Gas Storage capacity

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 E5 (Other Equipment)
Print Date: 7/12/2023

Make:

Manufacturer:

Model:

Equipment Type:

Digester #3

Capacity:

Units:

Description:

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

36,000 lbs Sludge Input/Day, 90,000 CF Methane Gas Storage capacity

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 E6 (Other Equipment)
Print Date: 7/12/2023

Make:

Manufacturer:

Model:

Equipment Type:

Digester #4

Capacity:

Units:

Description:

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

36,000 lbs Sludge Input/Day, 90,000 CF Methane Gas Storage capacity

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E7 (Boiler)

Print Date: 7/12/2023

Make:	<input type="text" value="H.B. SMITH"/>
Manufacturer:	<input type="text" value="H.B. SMITH"/>
Model:	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	<input type="text" value="7.93"/>
Boiler Type:	<input type="text" value="Package"/>
Utility Type:	<input type="text" value="Non-Utility"/>
Output Type:	<input type="text" value="Water Only"/>
Steam Output (lb/hr):	<input type="text"/>
Fuel Firing Method:	<input type="text"/>
Description (if other):	<input type="text"/>
Draft Type:	<input type="text"/>
Heat Exchange Type:	<input type="text"/>

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

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

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E8 (Boiler)

Print Date: 7/12/2023

Make:

Manufacturer:

Model:

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

Boiler Type:

Utility Type:

Output Type:

Steam Output (lb/hr):

Fuel Firing Method:

Description (if other):

Draft Type:

Heat Exchange Type:

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

Low NOx Burner: ☐ Type:

Staged Air Combustion: ☐

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

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E9 (Boiler)

Print Date: 7/12/2023

Make:	<input type="text" value="H.B. SMITH"/>
Manufacturer:	<input type="text" value="H.B. SMITH"/>
Model:	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	<input type="text" value="7.93"/>
Boiler Type:	<input type="text" value="Package"/>
Utility Type:	<input type="text" value="Non-Utility"/>
Output Type:	<input type="text" value="Water Only"/>
Steam Output (lb/hr):	<input type="text"/>
Fuel Firing Method:	<input type="text"/>
Description (if other):	<input type="text"/>
Draft Type:	<input type="text"/>
Heat Exchange Type:	<input type="text"/>

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

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

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E14 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	<input type="text"/>
Manufacturer:	<input type="text"/>
Model:	<input type="text"/>
Type of Manufacturing and Materials Handling Equipment:	<input type="text"/>
Capacity:	<input type="text" value="5.57E+03"/>
Units:	<input type="text" value="other units"/>
Description (if other):	<input type="text" value="LBS/HR"/>
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="text" value="Yes"/>
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="text"/>
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E15 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	<input type="text"/>
Manufacturer:	<input type="text"/>
Model:	<input type="text"/>
Type of Manufacturing and Materials Handling Equipment:	<input type="text"/>
Capacity:	<input type="text" value="5.57E+03"/>
Units:	<input type="text" value="other units"/>
Description (if other):	<input type="text" value="LBS/HR"/>
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="text" value="Yes"/>
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="text"/>
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E16 (Storage Vessel)

Print Date: 7/12/2023

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

6,490

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

No

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Rectangular

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

25.00

Length (ft):

20.00

Width (ft):

20.00

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Submerged

Description (if other):

Maximum Design Fill Rate:

3,560.00

Units:

gal/min

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

Roof Type:

Roof Height (From Roof
Bottom

to Roof Top) (ft):

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel
have a Vapor Return Loop?

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E16 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

Annual throughput: 1,247,424,000 (10³
gal/yr)

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E17 (Storage Vessel)

Print Date: 7/12/2023

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

6,490

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

No

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Rectangular

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

25.00

Length (ft):

20.00

Width (ft):

20.00

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Submerged

Description (if other):

Maximum Design Fill Rate:

3,560.00

Units:

gal/min

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

Roof Type:

Roof Height (From Roof
Bottom

to Roof Top) (ft):

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel
have a Vapor Return Loop?

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E17 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

Annual throughput: 1,247,420,000 (10³
gal/yr)

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E19 (Boiler)
Print Date: 7/12/2023

Make:	KEWANEE
Manufacturer:	KEWANEE
Model:	
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	5.23
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:	Direct

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

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

Comments: NATURAL GAS & #2 F.O.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E20 (Boiler)
Print Date: 7/12/2023

Make:	KEWANEE
Manufacturer:	KEWANEE
Model:	
Maximum Rated Gross Heat Input (MMBtu/hr - HHV):	5.23
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:	Direct

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

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

Comments: NATURAL GAS & #2 F.O.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E23 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Silo

Design Capacity:

4,600

Units:

ft^3

Ground Location:

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Cylindrical

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

54.00

Length (ft):

Width (ft):

Diameter (ft):

12.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

560.00

Units:

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

Roof

Roof Type:

Horizontal fixed roof tank

Roof Height (From Roof Bottom

to Roof Top) (ft):

54.00

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E23 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

QUICK LIME, FILL= 560 LBS / MIN. Annual
throughput: 3,120,000 lbs/yr. Equipped with a
baghouse.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E26 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	WETWELL - CP-1
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	3.66E+05
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E27 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	CENTRIFUGE
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	7.70E+04
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E28 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	CENTRIFUGE
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	7.70E+04
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E29 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	CENTRIFUGE
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	7.70E+04
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E35 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	INCLINED SCREW CONVEYOR #1
Manufacturer:	Asdor
Model:	SC 602 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Inclined screw conveyor
Capacity:	5.00E+00
Units:	other units
Description (if other):	Wet Tons/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:	INCLINE SCREW CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E36 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	INCLINED SCREW CONVEYOR #2
Manufacturer:	Asdor
Model:	SC 609 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Inclined screw conveyor
Capacity:	5.00E+00
Units:	other units
Description (if other):	Wet Tons/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:	INCLINE SCREW CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E37 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	INCLINED SCREW CONVEYOR #3
Manufacturer:	Asdor
Model:	SC 616 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Inclined Screw Conveyor
Capacity:	5.00E+00
Units:	other units
Description (if other):	Wet Tons/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:	INCLINE SCREW CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E38 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	REVERSING BELT CONVEYOR #1
Manufacturer:	RDP Comp.
Model:	RBC 621 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Reversing belt conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	REVERSING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E39 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	REVERSING BELT CONVEYOR #2
Manufacturer:	RDP Comp.
Model:	RBC 624 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Reversing belt conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	REVERSING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E40 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	INCLINED SCREW CONVEYOR #4
Manufacturer:	Asdor
Model:	SC 701 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Inclined Screw Conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	INCLINE SCREW CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E41 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	INCLINED SCREW CONVEYOR #5
Manufacturer:	Asdor
Model:	SC 707 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Inclined Screw Conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	INCLINE SCREW CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E42 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	METERING BELT CONVEYOR #1
Manufacturer:	RDP Comp.
Model:	MC 704 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	metering belt conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	METERING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E43 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	METERING BELT CONVEYOR #2
Manufacturer:	RDP Comp.
Model:	MC 710 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Metering belt conveyor
Capacity:	1.00E+01
Units:	other units
Description (if other):	Wet Tons/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:	METERING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E44 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	BELT CONVEYOR #1
Manufacturer:	RDP Comp.
Model:	MC 717
Type of Manufacturing and Materials Handling Equipment:	Belt Conveyor
Capacity:	1.10E+01
Units:	other units
Description (if other):	Wet Tons/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:	BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E45 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	BELT CONVEYOR #2
Manufacturer:	RDP Comp.
Model:	MC 725
Type of Manufacturing and Materials Handling Equipment:	Belt Conveyor
Capacity:	1.10E+01
Units:	other units
Description (if other):	Wet Tons/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:	BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E46 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	REVERSING BELT CONVEYOR #3
Manufacturer:	RDP Comp.
Model:	RDC 800 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Reversing belt conveyor
Capacity:	1.10E+01
Units:	other units
Description (if other):	Wet Tons/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:	REVERSING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E47 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	REVERSING BELT CONVEYOR #4
Manufacturer:	RDP Comp.
Model:	RBC 805 (Tag #)
Type of Manufacturing and Materials Handling Equipment:	Reversing belt conveyor
Capacity:	1.10E+01
Units:	other units
Description (if other):	Wet Tons/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:	REVERSING BELT CONVEYOR

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E48 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Bin

Design Capacity:

2,500

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Rectangular

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

16.50

Length (ft):

12.00

Width (ft):

8.00

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

400.00

Units:

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

Open Top

Roof Type:

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

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel
have a Vapor Return Loop?

Does the storage vessel

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E48 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E49 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Bin

Design Capacity:

2,500

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Rectangular

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

16.50

Length (ft):

12.00

Width (ft):

8.00

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

400.00

Units:

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

Open Top

Roof Type:

Roof Height (From Roof
Bottom

to Roof Top) (ft):

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel
have a Vapor Return Loop?

Does the storage vessel

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E49 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E50 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Bin

Design Capacity:

2,500

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Welded

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Rectangular

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

16.50

Length (ft):

12.00

Width (ft):

8.00

Diameter (ft):

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

400.00

Units:

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

Open Top

Roof Type:

Roof Height (From Roof
Bottom

to Roof Top) (ft):

Roof Construction:

Primary Seal Type:

Secondary Seal Type:

Total Number of Seals:

Roof Support:

Does the storage vessel
have a Vapor Return Loop?

Does the storage vessel

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E50 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E51 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	
Type of Manufacturing and Materials Handling Equipment:	Dryer / Conveyors / hopper
Capacity:	1.16E+04
Units:	other units
Description (if other):	(wet) lbs/hr
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:	The system is limited to 33.4 dry tons/day/dryer or 66.8 dry tons/day for all three dryers. Only 2 dryer trains are permitted to operate at any one time.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E52 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	
Type of Manufacturing and Materials Handling Equipment:	Dryer / Conveyors / hopper
Capacity:	1.16E+04
Units:	other units
Description (if other):	(wet) lbs/hr
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:	The system is limited to 33.4 dry tons/day/dryer or 66.8 dry tons/day for all three dryers. Only 2 dryer trains are permitted to operate at any one time.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E53 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	
Type of Manufacturing and Materials Handling Equipment:	Dryer / Conveyors / hopper
Capacity:	1.16E+04
Units:	other units
Description (if other):	(wet) lbs/hr
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:	The system is limited to 33.4 dry tons/day/dryer or 66.8 dry tons/day for all three dryers. Only 2 dryer trains are permitted to operate at any one time.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E54 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PROCESS DRAIN LIFT STATION
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	1.16E+05
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E57 (Storage Vessel)
Print Date: 7/12/2023

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

460,000

Units:

gallons

Ground Location:

Above Ground

Is the Shell of the Equipment

Yes

Exposed to Sunlight?

Shell Color:

Other

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Cylindrical

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

16.00

Length (ft):

Width (ft):

Diameter (ft):

70.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Submerged

Description (if other):

Maximum Design Fill Rate:

1,900.00

Units:

gal/min

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

Roof

Roof Type:

External floating 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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E57 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

ANAEROBICALLY DIGESTED
SLUDGETANK # 1. Tank is controlled by a
flare. Annual throughput: 50,354 (10³ gal/yr)

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E58 (Storage Vessel)

Print Date: 7/12/2023

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

Liquids Only

Storage Vessel Type:

Tank

Design Capacity:

460,000

Units:

gallons

Ground Location:

Above Ground

Is the Shell of the Equipment

Yes

Exposed to Sunlight?

Shell Color:

Other

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Cylindrical

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

16.00

Length (ft):

Width (ft):

Diameter (ft):

70.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Submerged

Description (if other):

Maximum Design Fill Rate:

1,900.00

Units:

gal/min

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

Roof

Roof Type:

External floating 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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E58 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

ANAEROBICALLY DIGESTED
SLUDGETANK # 2. Tank is controlled by a
flare. Annual throughput: 50,354 (10³ gal/yr)

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E61 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	VAC-U-MAX
Manufacturer:	VAC-U-MAX
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	5.00E+02
Units:	other units
Description (if other):	LBS / BATCH
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?	
Comments:	PNEUMATIC CONVEYING STATION - TRANSFER STATION

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E62 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E63 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E64 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E65 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E66 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E67 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E68 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E69 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E70 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E71 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E72 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E73 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	PELLETIZATION EQUIPMENT (Flue V)
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	2.78E+03
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E74 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Silo

Design Capacity:

5,000

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Cylindrical

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

54.00

Length (ft):

Width (ft):

Diameter (ft):

12.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

2.50

Units:

ft^3/min

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

Roof

Roof Type:

Vertical 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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E74 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

BULK STORAGE SILO # 1. Annual
throughput: 450,000 ft³/yr. Controlled with a
baghouse.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E75 (Storage Vessel)
Print Date: 7/12/2023

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

Solids Only

Storage Vessel Type:

Silo

Design Capacity:

5,000

Units:

ft^3

Ground Location:

Above Ground

Is the Shell of the Equipment

Exposed to Sunlight?

Shell Color:

Description (if other):

Shell Condition:

Paint Condition:

Shell Construction:

Is the Shell Insulated?

Type of Insulation:

Insulation Thickness (in):

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

Shape of Storage Vessel:

Cylindrical

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

54.00

Length (ft):

Width (ft):

Diameter (ft):

12.00

Other Dimension

Description:

Value:

Units:

Fill Method:

Top Pipe

Description (if other):

Maximum Design Fill Rate:

2.50

Units:

ft^3/min

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

Roof

Roof Type:

Vertical 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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E75 (Storage Vessel)

Print Date: 7/12/2023

Does the storage vessel
have a Conservation Vent?

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

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

Comments:

BULK STORAGE SILO # 2. Annual
throughput: 450,000 ft³/yr. Controlled by a
baghouse.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E76 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	TRUCK LOADING SPOUT
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	4.00E+04
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	TRUCK LOADING SPOUT # 1

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E77 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	TRUCK LOADING SPOUT
Manufacturer:	
Model:	
Type of Manufacturing and Materials Handling Equipment:	
Capacity:	4.00E+04
Units:	other units
Description (if other):	LBS / HR
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?	
Comments:	TRUCK LOADING SPOUT # 2

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E78 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	Komline Sanderson (or approved equal)
Manufacturer:	
Model:	Gravabelt Model GSC Series III - 2 meter
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener
Capacity:	4.00E+02
Units:	other units
Description (if other):	gallons/min
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:	400 gpm is the capacity for 1 belt. The maximum capacity for all 3 belts is 800 gpm.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E79 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	Komline Sanderson (or approved equal)
Manufacturer:	
Model:	Gravabelt Model GSC Series III - 2 meter
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener
Capacity:	4.00E+02
Units:	other units
Description (if other):	gallons/min
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:	400 gpm is the capacity for 1 belt. The maximum capacity for all 3 belts is 800 gpm.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E80 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	Komline Sanderson (or approved equal)
Manufacturer:	
Model:	Gravabelt Model GSC Series III - 2 meter
Type of Manufacturing and Materials Handling Equipment:	Gravity Belt Thickener
Capacity:	4.00E+02
Units:	other units
Description (if other):	gallons/min
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:	400 gpm is the capacity for 1 belt. The maximum capacity for all 3 belts is 800 gpm.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E81 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	NA
Manufacturer:	NA
Model:	NA
Type of Manufacturing and Materials Handling Equipment:	Filtrate Wet Well
Capacity:	1.46E+02
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:	The capacity is based on a length of 13 feet, a width of 3 feet, and a height of 3'9" to the bottom of the overflow pipe. The well is a stainless steel tank.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E82 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	NA
Manufacturer:	NA
Model:	NA
Type of Manufacturing and Materials Handling Equipment:	Sludge Cake Well
Capacity:	1.21E+02
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:	The well is constructed out of concrete.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E83 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	NA
Manufacturer:	NA
Model:	NA
Type of Manufacturing and Materials Handling Equipment:	Sludge Cake Well
Capacity:	1.21E+02
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:	The well is constructed out of concrete.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E84 (Manufacturing and Materials Handling Equipment)
Print Date: 7/12/2023

Make:	NA
Manufacturer:	NA
Model:	NA
Type of Manufacturing and Materials Handling Equipment:	Sludge Cake Well
Capacity:	1.21E+02
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:	The well is constructed out of concrete.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4301 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	<input type="text" value="Caterpillar"/>	
Manufacturer:	<input type="text" value="Caterpillar"/>	
Model:	<input type="text" value="G3516 LE"/>	
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text" value="9.3"/>	
Class:	<input type="text"/>	
Description:	<input type="text"/>	
Duty:	<input type="text" value="Load Following"/>	
Description:	<input type="text"/>	
Minimum Load Range (%):	<input type="text" value="50"/>	
Maximum Load Range (%):	<input type="text" value="100"/>	
Stroke:	<input type="text" value="4-stroke"/>	
Power Output (BHP):	<input type="text" value="1185"/>	
Electric Output(KW):	<input type="text" value="810"/>	
Compression Ratio:	<input type="text" value="11"/>	
Ignition Type:	<input type="text" value="Spark"/>	
Description:	<input type="text"/>	
Engine Speed (RPM):	<input type="text" value="1200"/>	
Engine Exhaust Temperature (°F):	<input type="text" value="991"/>	
Air to Fuel Ratio at Peak Load:	<input type="text" value="9"/>	
Ratio Basis:	<input type="text" value="Volume Basis"/>	
Lambda Factor (scfm/scfm):	<input type="text" value="0.93"/>	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	<input type="text" value="7226"/>	
Output Type:	<input type="text" value="Cogeneration"/>	
Heat to Power Ratio:	<input type="text" value="1"/>	
Is the Engine Using a Turbocharger?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the Engine Using (check all that apply):		
A Prestratified Charge (PSC)	<input type="checkbox"/>	A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/>	Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/>	Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>	
Description:	<input type="text"/>	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Comments:	<input type="text" value="1085 BHP natural gas"/> <input type="text" value="1148 BHP digester"/> <input type="text" value="7,244 BTU/BHP-hr - LHV digester gas"/> <input type="text" value="6,929 BTU/BHP-hr - natural gas"/>	

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4302 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	<input type="text" value="Caterpillar"/>	
Manufacturer:	<input type="text" value="Caterpillar"/>	
Model:	<input type="text" value="G3516 LE"/>	
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text" value="9.3"/>	
Class:	<input type="text"/>	
Description:	<input type="text"/>	
Duty:	<input type="text" value="Load Following"/>	
Description:	<input type="text"/>	
Minimum Load Range (%):	<input type="text" value="50"/>	
Maximum Load Range (%):	<input type="text" value="100"/>	
Stroke:	<input type="text" value="4-stroke"/>	
Power Output (BHP):	<input type="text" value="1185"/>	
Electric Output(KW):	<input type="text" value="810"/>	
Compression Ratio:	<input type="text" value="11"/>	
Ignition Type:	<input type="text" value="Spark"/>	
Description:	<input type="text"/>	
Engine Speed (RPM):	<input type="text" value="1200"/>	
Engine Exhaust Temperature (°F):	<input type="text" value="991"/>	
Air to Fuel Ratio at Peak Load:	<input type="text" value="9"/>	
Ratio Basis:	<input type="text" value="Volume Basis"/>	
Lambda Factor (scfm/scfm):	<input type="text" value="0.93"/>	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	<input type="text" value="7226"/>	
Output Type:	<input type="text" value="Cogeneration"/>	
Heat to Power Ratio:	<input type="text" value="1"/>	
Is the Engine Using a Turbocharger?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the Engine Using (check all that apply):		
A Prestratified Charge (PSC)	<input type="checkbox"/>	A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/>	Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/>	Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>	
Description:	<input type="text"/>	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Comments:	1085 BHP natural gas 1148 BHP digester 7,244 BTU/BHP-hr - LHV digester gas 6,929 BTU/BHP-hr - natural gas	

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4303 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3516 LE
Maximum Rated Gross Heat Input (MMBtu/hr):	9.3
Class:	
Description:	
Duty:	Load Following
Description:	
Minimum Load Range (%):	50
Maximum Load Range (%):	100
Stroke:	4-stroke
Power Output (BHP):	1185
Electric Output(KW):	810
Compression Ratio:	11
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1200
Engine Exhaust Temperature (°F):	991
Air to Fuel Ratio at Peak Load:	9
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	0.93
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	7226
Output Type:	Cogeneration
Heat to Power Ratio:	1
Is the Engine Using a Turbocharger?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using (check all that apply):	
A Prestratified Charge (PSC)	<input type="checkbox"/> A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/> Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/> Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>
Description:	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	1085 BHP natural gas 1148 BHP digester 7,244 BTU/BHP-hr - LHV digester gas 6,929 BTU/BHP-hr - natural gas

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4304 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3516 LE
Maximum Rated Gross Heat Input (MMBtu/hr):	9.3
Class:	
Description:	
Duty:	Load Following
Description:	
Minimum Load Range (%):	50
Maximum Load Range (%):	100
Stroke:	4-stroke
Power Output (BHP):	1185
Electric Output(KW):	810
Compression Ratio:	11
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	1200
Engine Exhaust Temperature (°F):	991
Air to Fuel Ratio at Peak Load:	9
Ratio Basis:	Volume Basis
Lambda Factor (scfm/scfm):	0.93
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	7226
Output Type:	Cogeneration
Heat to Power Ratio:	1
Is the Engine Using a Turbocharger?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using (check all that apply):	
A Prestratified Charge (PSC)	<input type="checkbox"/> A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/> Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/> Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>
Description:	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	1085 BHP natural gas 1148 BHP digester 7,244 BTU/BHP-hr - LHV digester gas 6,929 BTU/BHP-hr - natural gas

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4305 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	<input type="text" value="Caterpillar"/>	
Manufacturer:	<input type="text" value="Caterpillar"/>	
Model:	<input type="text" value="G3516 LE"/>	
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text" value="9.3"/>	
Class:	<input type="text"/>	
Description:	<input type="text"/>	
Duty:	<input type="text" value="Load Following"/>	
Description:	<input type="text"/>	
Minimum Load Range (%):	<input type="text" value="50"/>	
Maximum Load Range (%):	<input type="text" value="100"/>	
Stroke:	<input type="text" value="4-stroke"/>	
Power Output (BHP):	<input type="text" value="1185"/>	
Electric Output(KW):	<input type="text" value="810"/>	
Compression Ratio:	<input type="text" value="11"/>	
Ignition Type:	<input type="text" value="Spark"/>	
Description:	<input type="text"/>	
Engine Speed (RPM):	<input type="text" value="1200"/>	
Engine Exhaust Temperature (°F):	<input type="text" value="991"/>	
Air to Fuel Ratio at Peak Load:	<input type="text" value="9"/>	
Ratio Basis:	<input type="text" value="Volume Basis"/>	
Lambda Factor (scfm/scfm):	<input type="text" value="0.93"/>	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	<input type="text" value="7226"/>	
Output Type:	<input type="text" value="Cogeneration"/>	
Heat to Power Ratio:	<input type="text" value="1"/>	
Is the Engine Using a Turbocharger?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Is the Engine Using (check all that apply):		
A Prestratified Charge (PSC)	<input type="checkbox"/>	A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input checked="" type="checkbox"/>	Ignition Timing Retard <input checked="" type="checkbox"/>
Low Emission Combustion	<input checked="" type="checkbox"/>	Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>	
Description:	<input type="text"/>	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
	Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Comments:	<input type="text" value="1085 BHP natural gas"/> <input type="text" value="1148 BHP digester"/> <input type="text" value="7,244 BTU/BHP-hr - LHV digester gas"/> <input type="text" value="6,929 BTU/BHP-hr - natural gas"/>	

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4306 (Stationary Reciprocating Engine)
Print Date: 7/12/2023

Make:	Caterpillar
Manufacturer:	Caterpillar
Model:	G3516
Maximum Rated Gross Heat Input (MMBtu/hr):	9.3
Class:	Lean Burn
Description:	
Duty:	
Description:	
Minimum Load Range (%):	
Maximum Load Range (%):	
Stroke:	4-stroke
Power Output (BHP):	
Electric Output(KW):	800
Compression Ratio:	
Ignition Type:	Spark
Description:	
Engine Speed (RPM):	
Engine Exhaust Temperature (°F):	
Air to Fuel Ratio at Peak Load:	
Ratio Basis:	
Lambda Factor (scfm/scfm):	
Brake Specific Fuel Consumption at Peak Load (Btu/BHP-hr):	
Output Type:	Cogeneration
Heat to Power Ratio:	
Is the Engine Using a Turbocharger?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using an Aftercooler?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Engine Using (check all that apply):	
A Prestratified Charge (PSC)	<input type="checkbox"/> A NOx Converter <input type="checkbox"/>
Air to Fuel Adjustment (AF)	<input type="checkbox"/> Ignition Timing Retard <input type="checkbox"/>
Low Emission Combustion	<input type="checkbox"/> Non-Selective Catalytic Retard (NSCR) <input type="checkbox"/>
Other	<input type="checkbox"/>
Description:	
Have you attached a diagram showing the location and/or the configuration of this equipment?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	1085 BHP natural gas 1148 BHP digester 7,244 BTU/BHP-hr - LHV digester gas 6,929 BTU/BHP-hr - natural gas

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4401 (Emergency Generator)
Print Date: 7/12/2023

Make:

Manufacturer:

Cummins

Model:

NT-400-GS

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

2.70

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

☐ Yes
☒ No

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 E4402 (Emergency Generator)
Print Date: 7/12/2023

Make:

Manufacturer:

Generac Power Systems

Model:

SD275

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

3.30

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

☐ Yes
☒ No

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

☐ Yes
☒ No

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

☐ Yes
☒ No

Comments:

BOP180002

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

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD1	CD1	WASTE GAS BURNER - DIGESTER BUILDING	Flare		No	11/1/1977	
CD2	CD2	WASTE GAS BURNER - DIGESTER BUILDING	Flare		No	11/1/1977	
CD3	CD3	LIME DUST FILTER	Particulate Filter (Baghouse)		No	2/1/1991	
CD4	New WGB1	Enclosed Waste Gas Burner	Flare	12/1/2024	No	10/15/2021	
CD5	New WGB2	Enclosed Waste Gas Burner	Flare	12/1/2024	No	10/15/2021	
CD7	CD7	WASTE GAS BURNER -SST #1 AND 2	Flare		No	1/1/1994	
CD8	CD8	VAC-U-MAX FILTER TRANSFER STATION	Particulate Filter (Cartridge)		No	7/1/1992	
CD9	CD9	DUST FILTER NO. 1- FLUE V	Particulate Filter (Baghouse)		No	10/25/1995	
CD10	CD10	DUST FILTER NO. 2- FLUE V	Particulate Filter (Baghouse)		No	10/25/1995	
CD11	CD11	Cyclone	Cyclone	6/6/2000	No	9/11/2000	
CD12	CD12	Direct Contact Condenser	Condenser	7/15/1996	No	9/11/2000	
CD13	CD13	Venturi Scrubber	Scrubber (Venturi)	7/15/1996	No	9/11/2000	
CD14	CD14	Boiler	Other	7/15/1996	No	9/11/2000	
CD15	CD15	Cyclone	Cyclone	6/6/2000	No	9/11/2000	
CD16	CD16	Direct Contact Condenser	Condenser	7/15/1996	No	9/11/2000	
CD17	CD17	Venturi Scrubber	Scrubber (Venturi)	7/15/1996	No	9/11/2000	

BOP180002

**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
CD18	CD18	Boiler	Other	7/15/1996	No	9/11/2000	
CD19	CD19	Cyclone	Cyclone	6/6/2000	No	9/11/2000	
CD20	CD20	Direct Contact Condenser	Condenser	7/15/1996	No	9/11/2000	
CD21	CD21	Venturi Scrubber	Scrubber (Venturi)	7/15/1996	No	9/11/2000	
CD22	CD22	Boiler	Other	7/15/1996	No	9/11/2000	
CD4301	Cat Ox 1	Catalytic Oxidizer	Oxidizer (Catalytic)		No		
CD4302	Cat Ox 2	Catalytic Oxidizer	Oxidizer (Catalytic)		No		
CD4303	Cat Ox 4	Catalytic Oxidizer	Oxidizer (Catalytic)		No		
CD4304	Cat Ox 5	Catalytic Oxidizer	Oxidizer (Catalytic)		No		
CD4305	Cat Ox 3	Catalytic Oxidizer	Oxidizer (Catalytic)	1/1/2022	No		
CD4306	Cat Ox 6	Catalytic Oxidizer	Oxidizer (Catalytic)	1/1/2022	No		

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD1 (Flare)
Print Date: 7/12/2023

Make:	<input type="text"/>
Manufacturer:	<input type="text"/>
Model:	<input type="text"/>
Type:	<input type="text" value="Open"/>
Minimum Residence Time (sec):	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text"/>
Auxilliary Fuel:	<input type="text"/>
Description:	<input type="text"/>
Method of Pilot Flame Monitoring:	<input type="text" value="Sight Glass"/>
Monitoring Location:	<input type="text" value="Local"/>
Automatic Gas Shutoff After Loss of Flame?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Automatic Reignition After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Gas Flow Rate (acfm):	<input type="text"/>
Minimum Operating Temperature (°F):	<input type="text"/>
Minimum Heat Content at Burner Tip (Btu/ft³):	<input type="text" value="200.00"/>
Flare Operation Type:	<input type="text" value="Continuous"/>
Does Flare have smokeless design?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame retainer?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame arrestor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with LEL monitor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Flare Stack Diameter (inches):	<input type="text"/>
Lower Heat Content of source gas (BTU/scf):	<input type="text"/>
Lower Heat Content of Supplemental Fuel (BTU/scf):	<input type="text"/>
Destruction and Removal Efficiency (%):	<input type="text"/>
How was Efficiency determined?	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="text"/>

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD1 (Flare)

Print Date: 7/12/2023

☐ Yes ☒ No

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

☐ Yes ☒ No

Comments:

CD1 and CD2 flares are identical. Only one is operational at a time. The other is used as a stand-by.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD2 (Flare)
Print Date: 7/12/2023

Make:	<input type="text"/>
Manufacturer:	<input type="text"/>
Model:	<input type="text"/>
Type:	<input type="text" value="Open"/>
Minimum Residence Time (sec):	<input type="text"/>
Maximum Rated Gross Heat Input (MMBtu/hr):	<input type="text"/>
Auxilliary Fuel:	<input type="text"/>
Description:	<input type="text"/>
Method of Pilot Flame Monitoring:	<input type="text" value="Sight Glass"/>
Monitoring Location:	<input type="text" value="Local"/>
Automatic Gas Shutoff After Loss of Flame?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Automatic Reignition After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Gas Flow Rate (acfm):	<input type="text"/>
Minimum Operating Temperature (°F):	<input type="text"/>
Minimum Heat Content at Burner Tip (Btu/ft³):	<input type="text" value="200.00"/>
Flare Operation Type:	<input type="text" value="Continuous"/>
Does Flare have smokeless design?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame retainer?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame arrestor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with LEL monitor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Flare Stack Diameter (inches):	<input type="text"/>
Lower Heat Content of source gas (BTU/scf):	<input type="text"/>
Lower Heat Content of Supplemental Fuel (BTU/scf):	<input type="text"/>
Destruction and Removal Efficiency (%):	<input type="text"/>
How was Efficiency determined?	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="text"/>

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD2 (Flare)

Print Date: 7/12/2023

☐ Yes ☒ No

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

☐ Yes ☒ No

Comments:

CD1 and CD2 flares are identical. Only one is operational at a time. The other is used as a stand-by.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD3 (Particulate Filter (Baghouse))
Print Date: 7/12/2023

Make:	
Manufacturer:	
Model:	36DS8
Number of Bags:	36
Size of Bags (ft²):	10.56
Total Bag Area (ft²):	380.0
Bag Fabric:	Polyster
Fabric Weight (oz/ft²):	14.00
Fabric Weave:	Felt
Fabric Finish:	Needled Scrim
Maximum Design Temperature Capability (°F):	275.0
Maximum Design Air Flow Rate (acfm):	1,000.0
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	2.60
Minimum Operating Pressure Drop (in. H2O):	4.00
Maximum Operating Pressure Drop (in. H2O):	6.00
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (°F):	100.0
Minimum Inlet Temperature (°F):	0.0
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	1,000.0
Maximum Inlet Gas Stream Moisture Content (%):	
Method for Determining When Bag Replacement is Required:	
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 CD3 (Particulate Filter (Baghouse))
Print Date: 7/12/2023

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:

[Lime Dust Filter](#)

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4 (Flare)
Print Date: 7/12/2023

Make:	
Manufacturer:	Varec Biogas
Model:	244ESF
Type:	Enclosed
Minimum Residence Time (sec):	0.70
Maximum Rated Gross Heat Input (MMBtu/hr):	27.00
Auxilliary Fuel:	Natural gas
Description:	
Method of Pilot Flame Monitoring:	Type K Thermocouple
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Automatic Reignition After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Gas Flow Rate (acfm):	0.1
Minimum Operating Temperature (°F):	500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	550.00
Flare Operation Type:	Continuous
Does Flare have smokeless design?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Flare equipped with flame retainer?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame arrestor?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Flare equipped with LEL monitor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Flare Stack Diameter (inches):	90.00
Lower Heat Content of source gas (BTU/scf):	550
Lower Heat Content of Supplemental Fuel (BTU/scf):	1020
Destruction and Removal Efficiency (%):	99.00
How was Efficiency determined?	Design Value
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	6
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4 (Flare)

Print Date: 7/12/2023

☐ Yes ☒ No

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

☐ Yes ☒ No

Comments:

Flow from sludge storage tanks is continuous, but flow from the digesters is during emergencies only when the Cogen and boilers are down.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD5 (Flare)
Print Date: 7/12/2023

Make:	
Manufacturer:	Varec Biogas
Model:	244ESF
Type:	Enclosed
Minimum Residence Time (sec):	0.70
Maximum Rated Gross Heat Input (MMBtu/hr):	27.00
Auxilliary Fuel:	Natural gas
Description:	
Method of Pilot Flame Monitoring:	Type K Thermocouple
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Automatic Reignition After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Gas Flow Rate (acfm):	0.1
Minimum Operating Temperature (°F):	500.0
Minimum Heat Content at Burner Tip (Btu/ft³):	550.00
Flare Operation Type:	Continuous
Does Flare have smokeless design?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Flare equipped with flame retainer?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame arrestor?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Flare equipped with LEL monitor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Flare Stack Diameter (inches):	90.00
Lower Heat Content of source gas (BTU/scf):	550
Lower Heat Content of Supplemental Fuel (BTU/scf):	1020
Destruction and Removal Efficiency (%):	99.00
How was Efficiency determined?	Design Value
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	6
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD5 (Flare)

Print Date: 7/12/2023

☐ Yes ☒ No

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

☐ Yes ☒ No

Comments:

Flow from sludge storage tanks is continuous, but flow from the digesters is during emergencies only when the Cogen and boilers are down.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD7 (Flare)
Print Date: 7/12/2023

Make:	Envirex Waste Burner - SST#1 and 2
Manufacturer:	Envirex
Model:	1348
Type:	Open
Minimum Residence Time (sec):	
Maximum Rated Gross Heat Input (MMBtu/hr):	
Auxilliary Fuel:	
Description:	
Method of Pilot Flame Monitoring:	Sight Glass
Monitoring Location:	Local
Automatic Gas Shutoff After Loss of Flame?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Automatic Reignition After Loss of Flame?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Gas Flow Rate (acfm):	
Minimum Operating Temperature (°F):	
Minimum Heat Content at Burner Tip (Btu/ft³):	200.00
Flare Operation Type:	Continuous
Does Flare have smokeless design?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame retainer?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with flame arrestor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Is Flare equipped with LEL monitor?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Flare Stack Diameter (inches):	
Lower Heat Content of source gas (BTU/scf):	
Lower Heat Content of Supplemental Fuel (BTU/scf):	
Destruction and Removal Efficiency (%):	
How was Efficiency determined?	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD7 (Flare)

Print Date: 7/12/2023

☐ Yes ☒ No

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

☐ Yes ☒ No

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD8 (Particulate Filter (Cartridge))

Print Date: 7/12/2023

Make:	VAC-U-MAX FILTER TRANSFER STATION
Manufacturer:	VAC-U-MAX
Model:	C-16608 MDL Z33507
Number of Cartridges:	1
Size of Cartridges (ft²):	11.00
Total Cartridge Area (ft²):	80.00
Maximum Design Temperature Capability (°F):	150.0
Maximum Design Air Flow Rate (acfm):	
Maximum Air Flow Rate to Filter Area Ratio:	1.20
Minimum Operating Pressure Drop (in. H2O):	0.01
Maximum Operating Pressure Drop (in. H2O):	10.00
Maximum Inlet Temperature (°F):	106.0
Maximum Operating Exhaust Gas Flow Rate (acfm):	

Method for Determining When Cartridge Replacement is Required:

Visual Inspections

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:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD9 (Particulate Filter (Baghouse))

Print Date: 7/12/2023

Make:	Dynamic Air
Manufacturer:	Dynamic Air
Model:	
Number of Bags:	56
Size of Bags (ft²):	7.36
Total Bag Area (ft²):	412.0
Bag Fabric:	Polyester w/5% Stainless Steel
Fabric Weight (oz/ft²):	16.00
Fabric Weave:	Scrim Supported Needled Felt
Fabric Finish:	Singed
Maximum Design Temperature Capability (°F):	
Maximum Design Air Flow Rate (acfm):	
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	6.30
Minimum Operating Pressure Drop (in. H2O):	0.50
Maximum Operating Pressure Drop (in. H2O):	5.00
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (°F):	100.0
Minimum Inlet Temperature (°F):	
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	2,600.0
Maximum Inlet Gas Stream Moisture Content (%):	
Method for Determining When Bag Replacement is Required:	
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 CD9 (Particulate Filter (Baghouse))
Print Date: 7/12/2023

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:

Dust Filter No. 1 - Flue V

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD10 (Particulate Filter (Baghouse))

Print Date: 7/12/2023

Make:	Dynamic Air
Manufacturer:	Dynamic Air
Model:	
Number of Bags:	22
Size of Bags (ft²):	7.36
Total Bag Area (ft²):	162.0
Bag Fabric:	Polyester w/5% Stainless Steel
Fabric Weight (oz/ft²):	16.00
Fabric Weave:	Scrim Supported Needled Felt
Fabric Finish:	Singed
Maximum Design Temperature Capability (°F):	
Maximum Design Air Flow Rate (acfm):	
Draft Type:	
Maximum Air Flow Rate to Cloth Area Ratio:	4.90
Minimum Operating Pressure Drop (in. H2O):	0.50
Maximum Operating Pressure Drop (in. H2O):	5.00
Method of Monitoring Pressure Drop:	
Maximum Inlet Temperature (°F):	100.0
Minimum Inlet Temperature (°F):	
Dew Point of Gas Stream Maximum Inlet Temperature (°F):	
Maximum Operating Exhaust Gas Flow Rate (acfm):	800.0
Maximum Inlet Gas Stream Moisture Content (%):	
Method for Determining When Bag Replacement is Required:	
Method for Determining When Cleaning is Required:	
Method of Bag Cleaning:	Pulse Jet
Description:	
Is Bag Cleaning Conducted On-Line?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD10 (Particulate Filter (Baghouse))
Print Date: 7/12/2023

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:

Dust Filter No. 2 - Flue V

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD11 (Cyclone)
Print Date: 7/12/2023

Make:	Dry Cyclone
Manufacturer:	Lufttechnik Bayreuth
Model:	ZE 66/1 with flanged cylinder
Unit Type:	O2
Description:	High efficiency, vertical cyclone
Major Cylinder Diameter, Dc (ft):	2.17
Major Cylinder Length, Lc (ft):	3.79
Gas Outlet Diameter, De (ft):	1.17
Gas Inlet Height, He (ft):	
Gas Inlet Width, Bc (ft):	1.00
Gas Outlet Length, Hc + Sc [usually 5/8 Dc] (ft):	1.69
Cone Length, Zc (ft):	2.61
Dust Outlet, Jc (ft):	0.83
Effective Number of Turns, Ne:	10
Inlet Gas Velocity, Vi (ft/min):	4,530.00
True Particle Density (lbs/ft³):	
Average Particle Size (micrometers):	100.00
Gas Temperature (°F):	230.0
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No
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:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	Avg Part. Size: 90% < 10 um; 100% < 100 um

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD12 (Condenser)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	DCCD-9
Condenser Type:	DC
Type of Material of Which Shell Is Constructed:	Upper sheel, Type 304 SS; Lower shell, Type 316 SS
Type of Material of Which Tubes Are Constructed:	NA
Minimum Gas Inlet Temperature (°F):	208.0
Maximum Gas Inlet Temperature (°F):	230.0
Heat Transfer (Contact) Surface Area (ft²):	
Maximum Gas Flow (acfm):	4,774.0
Minimum Cooling Medium Flow Rate (gpm):	200.0
Maximum Cooling Medium Flow Rate (gpm):	285.0
Minimum Heat Removal Capacity (BTU/hr):	
Liquid to Gas Flow Ratio for Optimal Efficiency:	
Minimum Cooling Medium Inlet Temperature (°F):	85
Maximum Cooling Medium Inlet Temperature (°F):	100
Minimum Cooling Medium Outlet Temperature (°F):	124
Maximum Cooling Medium Outlet Temperature (°F):	142
Minimum Gas Outlet Temperature (°F):	150
Maximum Gas Outlet Temperature (°F):	170
Minimum Condensate Outlet Temperature (°F):	124
Maximum Condensate Outlet Temperature (°F):	142
Type of Cooling Medium:	Chlorinated plant effluent
Use of Condensate:	
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:	NA

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

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 CD12 (Condenser)
Print Date: 7/12/2023

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

☒ Yes ☐ No

Comments:

Heat Removal - 9.725E05 BTU/hr based on a condensing water supply rate of 285 gpm@85 F and a make-up water supply rate of 73 gpm@ 80 F.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD13 (Scrubber (Venturi))

Print Date: 7/12/2023

Make:	Atlas-Stord
Manufacturer:	Stord
Model:	AS-04
Is the Scrubber Used for Particulate Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Used for Gas Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Equipped with a Mist Eliminator?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Pump Discharge Pressure (in. H2O):	
Maximum Pump Discharge Pressure (in. H2O):	
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	553.60
Minimum Operating Liquid Flow Rate (gpm):	45.00
Maximum Operating Liquid Flow Rate (gpm):	70.00
Method of Monitoring Liquid Flow Rate:	Locally mounted orifice plate flow meter
Minimum Operating Gas Flow Rate (acfm):	226.00
Maximum Operating Gas Flow Rate (acfm):	400.00
Method of Monitoring Gas Flow Rate:	Flow transmitter at boiler non-condensable gas inl
Minimum Operating Pressure Drop (in. H2O):	3.00
Maximum Operating Pressure Drop (in. H2O):	10.00
Method of Monitoring Pressure Drop:	Locally mntd. diff. press. gauge sensing pressures
Relative Direction of the Gas-Liquid Flow:	
Description:	
Throat Length (in):	4.00
Throat Diameter (in):	3.76
Maximum Inlet Gas Temperature (°F):	170.0
Maximum Outlet Gas Temperature (°F):	130.0
Inlet Particle Grain Loading (gr/dscf):	4.375
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:	NA

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD13 (Scrubber (Venturi))
Print Date: 7/12/2023

Comments:

Minimum Scrubber Medium inlet pressure - 20 PSIG.
Inlet Particle loading range 4.375 - 7.292 grains/acf.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD14 (Other)

Print Date: 7/12/2023

Make:	
Manufacturer:	Cleaver Brooks
Model:	CB-400
Maximum Air Flow Rate to Control Device (acfm):	400
Maximum Temperature of Vapor Stream to Control Device (°F):	80
Minimum Temperature of Vapor Stream to Control Device (°F):	60
Minimum Moisture Content of Vapor Stream to Control Device (%):	2.5
Minimum Pressure Drop Across Control Device (in. H2O):	
Maximum Pressure Drop Across Control Device (in. H2O):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Outlet Temp
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	Pressure drop is not applicable because the flow is burned directly by the flame as combustion air.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD15 (Cyclone)
Print Date: 7/12/2023

Make:	Dry Cyclone
Manufacturer:	Lufttechnik Bayreuth
Model:	ZE 66/1 with flanged cylinder
Unit Type:	O2
Description:	High efficiency, vertical cyclone
Major Cylinder Diameter, Dc (ft):	2.17
Major Cylinder Length, Lc (ft):	3.79
Gas Outlet Diameter, De (ft):	1.17
Gas Inlet Height, He (ft):	
Gas Inlet Width, Bc (ft):	1.00
Gas Outlet Length, Hc + Sc [usually 5/8 Dc] (ft):	1.69
Cone Length, Zc (ft):	2.61
Dust Outlet, Jc (ft):	0.83
Effective Number of Turns, Ne:	10
Inlet Gas Velocity, Vi (ft/min):	4,530.00
True Particle Density (lbs/ft³):	
Average Particle Size (micrometers):	100.00
Gas Temperature (°F):	230.0
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No
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:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	Avg Part. Size: 90% < 10 um; 100% < 100 um

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD16 (Condenser)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	DCCD-9
Condenser Type:	DC
Type of Material of Which Shell Is Constructed:	Upper sheel, Type 304 SS; Lower shell, Type 316 SS
Type of Material of Which Tubes Are Constructed:	NA
Minimum Gas Inlet Temperature (°F):	208.0
Maximum Gas Inlet Temperature (°F):	230.0
Heat Transfer (Contact) Surface Area (ft²):	
Maximum Gas Flow (acfm):	4,774.0
Minimum Cooling Medium Flow Rate (gpm):	200.0
Maximum Cooling Medium Flow Rate (gpm):	285.0
Minimum Heat Removal Capacity (BTU/hr):	
Liquid to Gas Flow Ratio for Optimal Efficiency:	
Minimum Cooling Medium Inlet Temperature (°F):	85
Maximum Cooling Medium Inlet Temperature (°F):	100
Minimum Cooling Medium Outlet Temperature (°F):	124
Maximum Cooling Medium Outlet Temperature (°F):	142
Minimum Gas Outlet Temperature (°F):	150
Maximum Gas Outlet Temperature (°F):	170
Minimum Condensate Outlet Temperature (°F):	124
Maximum Condensate Outlet Temperature (°F):	142
Type of Cooling Medium:	Chlorinated plant effluent
Use of Condensate:	
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:	NA

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

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 CD16 (Condenser)
Print Date: 7/12/2023

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

☒ Yes ☐ No

Comments:

Heat Removal - 9.725E05 BTU/hr based on a condensing water supply rate of 285 gpm@85 F and a make-up water supply rate of 73 gpm@ 80 F.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD17 (Scrubber (Venturi))
Print Date: 7/12/2023

Make:	Atlas-Stord
Manufacturer:	Stord
Model:	AS-04
Is the Scrubber Used for Particulate Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Used for Gas Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Equipped with a Mist Eliminator?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Pump Discharge Pressure (in. H2O):	
Maximum Pump Discharge Pressure (in. H2O):	
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	553.60
Minimum Operating Liquid Flow Rate (gpm):	45.00
Maximum Operating Liquid Flow Rate (gpm):	70.00
Method of Monitoring Liquid Flow Rate:	Locally mounted orifice plate flow meter
Minimum Operating Gas Flow Rate (acfm):	226.00
Maximum Operating Gas Flow Rate (acfm):	400.00
Method of Monitoring Gas Flow Rate:	Flow transmitter at boiler non-condensable gas inl
Minimum Operating Pressure Drop (in. H2O):	3.00
Maximum Operating Pressure Drop (in. H2O):	10.00
Method of Monitoring Pressure Drop:	Locally mntd. diff. press. gauge sensing pressures
Relative Direction of the Gas-Liquid Flow:	
Description:	
Throat Length (in):	4.00
Throat Diameter (in):	3.76
Maximum Inlet Gas Temperature (°F):	170.0
Maximum Outlet Gas Temperature (°F):	130.0
Inlet Particle Grain Loading (gr/dscf):	4.375
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:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input checked="" type="radio"/> Yes <input type="radio"/> No

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD17 (Scrubber (Venturi))
Print Date: 7/12/2023

Comments:

Minimum Scrubber Medium inlet pressure - 20 PSIG.
Inlet Particle loading range 4.375 - 7.292 grains/acf.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD18 (Other)

Print Date: 7/12/2023

Make:	<input type="text"/>
Manufacturer:	<input type="text" value="Cleaver Brooks"/>
Model:	<input type="text" value="CB-400"/>
Maximum Air Flow Rate to Control Device (acfm):	<input type="text" value="400"/>
Maximum Temperature of Vapor Stream to Control Device (°F):	<input type="text" value="80"/>
Minimum Temperature of Vapor Stream to Control Device (°F):	<input type="text" value="60"/>
Minimum Moisture Content of Vapor Stream to Control Device (%):	<input type="text" value="2.5"/>
Minimum Pressure Drop Across Control Device (in. H2O):	<input type="text"/>
Maximum Pressure Drop Across Control Device (in. H2O):	<input type="text"/>
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	<input type="text" value="1"/>
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	<input type="text" value="Outlet Temp"/>
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	<input type="text" value="Pressure drop is not applicable because the flow is burned directly by the flame as combustion air."/>

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD19 (Cyclone)
Print Date: 7/12/2023

Make:	Dry Cyclone
Manufacturer:	Lufttechnik Bayreuth
Model:	ZE 66/1 with flanged cylinder
Unit Type:	O2
Description:	High efficiency, vertical cyclone
Major Cylinder Diameter, Dc (ft):	2.17
Major Cylinder Length, Lc (ft):	3.79
Gas Outlet Diameter, De (ft):	1.17
Gas Inlet Height, He (ft):	
Gas Inlet Width, Bc (ft):	1.00
Gas Outlet Length, Hc + Sc [usually 5/8 Dc] (ft):	1.69
Cone Length, Zc (ft):	2.61
Dust Outlet, Jc (ft):	0.83
Effective Number of Turns, Ne:	10
Inlet Gas Velocity, Vi (ft/min):	4,530.00
True Particle Density (lbs/ft³):	
Average Particle Size (micrometers):	100.00
Gas Temperature (°F):	230.0
Have you attached a Particle Size Distribution Analysis?	<input type="radio"/> Yes <input checked="" type="radio"/> No
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:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Comments:	Avg Part. Size: 90% < 10 um; 100% < 100 um

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD20 (Condenser)
Print Date: 7/12/2023

Make:	
Manufacturer:	Stord
Model:	DCCD-8
Condenser Type:	DC
Type of Material of Which Shell Is Constructed:	Upper-Stainless Steel, lower-Stainless Steel
Type of Material of Which Tubes Are Constructed:	NA
Minimum Gas Inlet Temperature (°F):	208.0
Maximum Gas Inlet Temperature (°F):	230.0
Heat Transfer (Contact) Surface Area (ft²):	
Maximum Gas Flow (acfm):	4,774.0
Minimum Cooling Medium Flow Rate (gpm):	200.0
Maximum Cooling Medium Flow Rate (gpm):	285.0
Minimum Heat Removal Capacity (BTU/hr):	97,290.00
Liquid to Gas Flow Ratio for Optimal Efficiency:	
Minimum Cooling Medium Inlet Temperature (°F):	85
Maximum Cooling Medium Inlet Temperature (°F):	100
Minimum Cooling Medium Outlet Temperature (°F):	124
Maximum Cooling Medium Outlet Temperature (°F):	142
Minimum Gas Outlet Temperature (°F):	150
Maximum Gas Outlet Temperature (°F):	170
Minimum Condensate Outlet Temperature (°F):	124
Maximum Condensate Outlet Temperature (°F):	142
Type of Cooling Medium:	Chlorinated Plant Effluent
Use of Condensate:	Air Pollution Control
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:	NA

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

41813 JOINT MEETING OF ESSEX _UNION CNTYS BOP180002 CD20 (Condenser)
Print Date: 7/12/2023

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

☐ Yes ☒ No

Comments:

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD21 (Scrubber (Venturi))
Print Date: 7/12/2023

Make:	Atlas-Stord
Manufacturer:	Stord
Model:	AS-04
Is the Scrubber Used for Particulate Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Used for Gas Control?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is the Scrubber Equipped with a Mist Eliminator?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Minimum Pump Discharge Pressure (in. H2O):	
Maximum Pump Discharge Pressure (in. H2O):	
Method of Monitoring Pump Discharge Pressure:	
Minimum Pump Current (amps):	
Maximum Pump Current (amps):	
Method of Monitoring Pump Current:	
Minimum Scrubber Medium Inlet Pressure (in. H2O):	553.60
Minimum Operating Liquid Flow Rate (gpm):	45.00
Maximum Operating Liquid Flow Rate (gpm):	70.00
Method of Monitoring Liquid Flow Rate:	Locally mounted orifice plate flow meter
Minimum Operating Gas Flow Rate (acfm):	226.00
Maximum Operating Gas Flow Rate (acfm):	400.00
Method of Monitoring Gas Flow Rate:	Flow transmitter at boiler non-condensable gas inl
Minimum Operating Pressure Drop (in. H2O):	3.00
Maximum Operating Pressure Drop (in. H2O):	10.00
Method of Monitoring Pressure Drop:	Locally mntd. diff. press. gauge sensing pressures
Relative Direction of the Gas-Liquid Flow:	
Description:	
Throat Length (in):	4.00
Throat Diameter (in):	3.76
Maximum Inlet Gas Temperature (°F):	170.0
Maximum Outlet Gas Temperature (°F):	130.0
Inlet Particle Grain Loading (gr/dscf):	4.375
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:	NA

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

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD21 (Scrubber (Venturi))
Print Date: 7/12/2023

Comments:

Minimum Scrubber Medium inlet pressure - 20 PSIG.
Inlet Particle loading range 4.375 - 7.292 grains/acf.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD22 (Other)

Print Date: 7/12/2023

Make:	
Manufacturer:	Cleaver Brooks
Model:	CB-400
Maximum Air Flow Rate to Control Device (acfm):	400
Maximum Temperature of Vapor Stream to Control Device (°F):	80
Minimum Temperature of Vapor Stream to Control Device (°F):	60
Minimum Moisture Content of Vapor Stream to Control Device (%):	2.5
Minimum Pressure Drop Across Control Device (in. H2O):	
Maximum Pressure Drop Across Control Device (in. H2O):	
Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	1
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Outlet Temp
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	Pressure drop is not applicable because the flow is burned directly by the flame as combustion air.

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4301 (Oxidizer (Catalytic))
Print Date: 7/12/2023

Make:	Miratech
Manufacturer:	Miratech
Model:	IQ-34-18-HI
Minimum Inlet Temperature (°F):	400
Maximum Inlet Temperature (°F)	1035
Minimum Outlet Temperature (°F)	750
Maximum Outlet Temperature (°F):	1350
Minimum Residence Time (sec)	
Fuel Type:	Other
Description:	Digester Gas
Maximum Rated Gross Heat Input (MMBtu/hr):	8.3
Minimum Pressure Drop Across Catalyst (psi):	1
Maximum Pressure Drop Across Catalyst (psi):	5
Catalyst Material:	Ceramic-Platinum
Form of Catalyst:	Other
Description:	Rings
Minimum Expected Life of Catalyst:	1
Units:	Years
Volume of Catalyst (ft³):	1.39
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	Minimum Residence Time: 1/125,000 hr

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4302 (Oxidizer (Catalytic))
Print Date: 7/12/2023

Make:	Miratech
Manufacturer:	Miratech
Model:	IQ-34-18-HI
Minimum Inlet Temperature (°F):	400
Maximum Inlet Temperature (°F)	1035
Minimum Outlet Temperature (°F)	750
Maximum Outlet Temperature (°F):	1350
Minimum Residence Time (sec)	
Fuel Type:	Other
Description:	Digester Gas
Maximum Rated Gross Heat Input (MMBtu/hr):	8.3
Minimum Pressure Drop Across Catalyst (psi):	1
Maximum Pressure Drop Across Catalyst (psi):	5
Catalyst Material:	Ceramic-Platinum
Form of Catalyst:	Other
Description:	Rings
Minimum Expected Life of Catalyst:	1
Units:	Years
Volume of Catalyst (ft³):	1.39
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	Minimum Residence Time: 1/125,000 hr

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4304 (Oxidizer (Catalytic))
Print Date: 7/12/2023

Make:	Miratech
Manufacturer:	Miratech
Model:	IQ-34-18-HI
Minimum Inlet Temperature (°F):	400
Maximum Inlet Temperature (°F)	1250
Minimum Outlet Temperature (°F)	750
Maximum Outlet Temperature (°F):	1350
Minimum Residence Time (sec)	0.03
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	8.3
Minimum Pressure Drop Across Catalyst (psi):	0.002
Maximum Pressure Drop Across Catalyst (psi):	0.4
Catalyst Material:	Palladium/Platinum
Form of Catalyst:	Honeycomb
Description:	
Minimum Expected Life of Catalyst:	6
Units:	months
Volume of Catalyst (ft³):	1.39
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:	NA
Have you attached data from recent performance testing?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	See CD4301 for control efficiencies as it is identical

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4305 (Oxidizer (Catalytic))
Print Date: 7/12/2023

Make:	Miratech
Manufacturer:	Miratech
Model:	IQ-34-18-HI
Minimum Inlet Temperature (°F):	400
Maximum Inlet Temperature (°F)	1250
Minimum Outlet Temperature (°F)	750
Maximum Outlet Temperature (°F):	1350
Minimum Residence Time (sec)	0.03
Fuel Type:	Natural gas
Description:	Digester Gas
Maximum Rated Gross Heat Input (MMBtu/hr):	8.3
Minimum Pressure Drop Across Catalyst (psi):	0.002
Maximum Pressure Drop Across Catalyst (psi):	0.02
Catalyst Material:	Palladium/Platinum
Form of Catalyst:	Honeycomb
Description:	Rings
Minimum Expected Life of Catalyst:	6
Units:	months
Volume of Catalyst (ft³):	1.39
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	Minimum Residence Time: 1/125,000 hr

41813 JOINT MEETING OF ESSEX UNION CNTYS BOP180002 CD4306 (Oxidizer (Catalytic))
Print Date: 7/12/2023

Make:	Miratech
Manufacturer:	Miratech
Model:	IQ-34-18-HI
Minimum Inlet Temperature (°F):	400
Maximum Inlet Temperature (°F)	1250
Minimum Outlet Temperature (°F)	750
Maximum Outlet Temperature (°F):	1350
Minimum Residence Time (sec)	0.03
Fuel Type:	Natural gas
Description:	
Maximum Rated Gross Heat Input (MMBtu/hr):	8.3
Minimum Pressure Drop Across Catalyst (psi):	0.002
Maximum Pressure Drop Across Catalyst (psi):	0.02
Catalyst Material:	Palladium/Platinum
Form of Catalyst:	Honeycomb
Description:	
Minimum Expected Life of Catalyst:	6
Units:	months
Volume of Catalyst (ft³):	1.39
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Comments:	

BOP180002

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

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT1	PT1	Boiler #1 (Cleaver Brooks-250hp) P&O Bldg.	Round	27	35	400	500.0	475.0	525.0	3,500.0	3,325.0	3,675.0	Horizontal	
PT3	PT3	(3) 190 hP Smith boilers #3, 4, and 5 - Boiler house	Round	36	23	200	400.0	380.0	420.0	5,500.0	4,800.0	5,970.0	Up	
PT4	New WGB1	Enclosed Waste Gas Burner	Round	90	30	142	700.0	500.0	900.0	29,000.0	200.0	66,000.0	Up	
PT5	New WGB2	Enclosed Waste Gas Burner	Round	90	30	142	700.0	500.0	900.0	29,000.0	200.0	66,000.0	Up	
PT13	PT13	Liquid sludge storage tanks EF-21 & EF22 - Dewatering Facility	Round	12	188	78	70.0	65.0	75.0	800.0	760.0	840.0	Up	
PT16	PT16	(2) 125 hP-Kewanee boilers #1 & #2, SDB-1 & SDB-2 - Dewatering Facility	Round	22	76	158	325.0	310.0	341.0	3,210.0	3,180.0	3,240.0	Up	
PT18	PT18	Lime storage silo, LS-1 and lime day bins #1 & #2 - Dewatering Facility	Round	6	65	135	70.0	65.0	80.0	1,000.0	950.0	1,050.0	Up	
PT19	PT19	Centrate wetwell, CP-1 - Dewatering Facility	Round	6	79	56	78.0	50.0	85.0	78.0	50.0	105.0	Up	
PT21	PT21	Waste gas burner & standby: Digesters #1, 2, 3, & 4 - Digester Bldg.	Round	6	53	150	2,200.0	2,090.0	2,310.0	9,500.0	9,025.0	9,975.0	Up	
PT22	PT22	Waste gas burner & standby: Digesters #1, 2, 3, & 4 - Digester Bldg.	Round	6	53	150	2,200.0	2,090.0	2,310.0	9,500.0	9,025.0	9,975.0	Up	
PT23	PT23	Dewatering Facility Exhaust Fans	Rectangle	36	33	113	70.0	70.0	120.0	105,000.0	99,750.0	110,250.0	Horizontal	
PT31	PT31	Dryer/Boiler #2	Round	24	76	90	400.0	350.0	460.0	6,000.0	5,480.0	6,150.0	Up	
PT32	PT32	Dryer/Boiler #3	Round	24	76	93	400.0	350.0	460.0	6,000.0	5,480.0	6,150.0	Up	

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.		
PT33	PT33	Dryer/Boiler # 1	Round	24	76	88	400.0	350.0	460.0	6,000.0	5,480.0	6,150.0	Up	
PT34	PT34	Process drain lift station wet well - Dryer Bldg.	Round	4	40	103	70.0	65.0	80.0	33.0	30.0	35.0	Up	
PT37	PT37	Waste gas burner: sludge storage tanks #1 & #2 - Waste gas burner bldg.	Round	20	39	240	1,200.0	1,140.0	1,260.0	524.0	498.0	550.0	Up	
PT40	PT40	VAC-U-MAX unit - Round room - Sludge transfer station	Round	11	8	209	70.0	65.0	80.0	504.0	479.0	529.0	Up	
PT41	PT41	Pelletization system (Flue V) - Dryer Facility	Round	14	91	94	70.0	65.0	80.0	3,400.0	3,230.0	3,570.0	Up	
PT42	GBTs	Gravity Belt Thickeners Exhaust	Round	36	43	260	70.0	70.0	105.0	30,500.0	27,450.0	33,550.0	Up	
PT44	EMGENP&O	Emergency Generator - P & O Bldg.	Round	5	11	270	900.0	700.0	1,100.0	1,900.0	1,600.0	2,200.0	Up	
PT45	EMGENLAB	Emergency Generator - New Lab Bldg.	Round	6	10	270	1,250.0	1,000.0	1,500.0	2,400.0	2,000.0	2,800.0	Up	
PT121	PT121	Pugmill #1, EF-19 - Dewatering Facility	Round	12	79	97	75.0	65.0	120.0	1,270.0	500.0	1,490.0	Up	
PT122	PT122	Pugmill #2, EF-20 - Dewatering Facility	Round	12	79	123	75.0	65.0	120.0	1,270.0	500.0	1,490.0	Up	
PT201	PT201	Centriguge #1, CE-400 - Dewatering Facility (1st vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	
PT202	PT202	Centriguge #1, CE-400 - Dewatering Facility (2nd vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	
PT211	PT211	Centrifuge #2, CE-401 - Dewatering Facility (1st vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	
PT212	PT212	Centrifuge #2, CE-401 - Dewatering Facility (2nd vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	

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.		
PT221	PT221	Centrifuge #3, CE-402 - Dewatering Facility (1st vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	
PT222	PT222	Centrifuge #3, CE-402 - Dewatering Facility (2nd vent)	Round	10	79	163	70.0	55.0	80.0	60.0	24.0	115.0	Up	
PT4301	RICE #1	RICE Engine #1	Round	13	30	70	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	
PT4302	RICE #2	RICE Engine #2	Round	13	30	70	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	
PT4303	RICE #5	RICE Engine #5	Round	13	30	70	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	
PT4304	RICE #4	RICE Engine #4	Round	13	30	70	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	
PT4305	Eng #3 Stack	RICE Engine #3 Emission Point	Round	13	30	80	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	PS 1
PT4306	Eng #6 Stack	RICE Engine #6 Emission Point	Round	13	30	80	730.0	380.0	400.0	6,800.0	4,800.0	8,000.0	Up	PS 1
PT4307	EXPLOS1	Explosion Relief Vent Stack - Engine #1	Round	12	30	80	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Horizontal	
PT4308	EXPLOS2	Explosion Relief Vent Stack - Engine #2	Round	12	30	80	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Horizontal	
PT4309	EXPLOS3	Explosion Relief Vent Stack - Engine #3	Round	12	30	80	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Horizontal	
PT4310	EXPLOS4	Explosion Relief Vent Stack - Engine #4	Round	12	30	80	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Horizontal	
PT4311	Eng5 Explos	RICE Engine #5 Explosion Relief Vent	Round	12	33	94	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Up	
PT4312	Eng6 Explos	RICE Engine #6 Explosion Relief Vent	Round	12	33	94	1,500.0	1,000.0	2,000.0	7,000.0	5,000.0	9,000.0	Up	
PT4501	Sandblaster	Fugitive Emissions (VENTS INDOORS)	Door	148	6	165	70.0	60.0	100.0	400.0	300.0	400.0	Horizontal	

JOINT MEETING OF ESSEX & UNION CNTYS (41813)

Date: 8/16/2023

BOP180002

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

U 1 Em Generator 10.46 MMBTU/hr NG Emergency Generator (boiler)

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	Emergency Generator (Boiler) (E1) firing natural gas	Normal - Steady State	E1		PT1	1-03-006-02		500.0		3,325.0	3,500.0	475.0	500.0

U 2 Wst gas Brn Sludge Digesters #1, 2, 3, & 4 controlled by flares

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	Sludge Digester #1	Normal - Steady State	E3	CD1 (P)	PT21	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS2	OS2	Sludge Digester #2	Normal - Steady State	E4	CD1 (P)	PT21	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS3	OS3	Sludge Digester #3	Normal - Steady State	E5	CD1 (P)	PT21	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS4	OS4	Sludge Digester #4	Normal - Steady State	E6	CD1 (P)	PT21	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS5		standby	Standby	E3	CD2 (P)	PT22	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS6		standby	Standby	E4	CD2 (P)	PT22	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS7		standby	Standby	E5	CD2 (P)	PT22	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0
OS8		standby	Standby	E6	CD2 (P)	PT22	5-01-007-89		8,760.0		9,025.0	9,500.0	500.0	900.0

JOINT MEETING OF ESSEX & UNION CNTYS (41813)
BOP180002

Date: 8/16/2023

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

U 3 Smth Blrs Three 7.93 MMBTU/hr DG/FO boilers

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	Boiler #3 - #2 Fuel Oil	Normal - Steady State	E7		PT3	1-03-006-02		8,760.0		4,800.0	5,500.0	380.0	420.0
OS2	OS2	Boiler #4 - Digester Gas	Normal - Steady State	E8		PT3	1-03-006-02		8,760.0		4,800.0	5,500.0	380.0	420.0
OS3	OS3	Boiler #4 - #2 Fuel Oil	Normal - Steady State	E8		PT3	1-03-006-02		8,760.0		4,800.0	5,500.0	380.0	420.0
OS4	OS4	Boiler #5 - Digester Gas	Normal - Steady State	E9		PT3	1-03-006-02		8,760.0		4,800.0	5,500.0	380.0	420.0

U 4 New WGB Sludge Digesters and Sludge Storage Tanks Controlled by Flares

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	Digester #1	SLUDGE DIGESTER #1 CONTROLLED BY FLARE #1	Normal - Steady State	E3	CD4 (P)	PT4	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS2	Digester #1	SLUDGE DIGESTER #1 CONTROLLED BY FLARE #2	Normal - Steady State	E3	CD5 (P)	PT5	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS3	Digester #2	SLUDGE DIGESTER #2 CONTROLLED BY FLARE #1	Normal - Steady State	E4	CD4 (P)	PT4	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS4	Digester #2	SLUDGE DIGESTER #2 CONTROLLED BY FLARE #2	Normal - Steady State	E4	CD5 (P)	PT5	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0

BOP180002

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

U 4 New WGB Sludge Digesters and Sludge Storage Tanks Controlled by Flares

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.
OS5	Digester #3	SLUDGE DIGESTER #3 CONTROLLED BY FLARE #1	Normal - Steady State	E5	CD4 (P)	PT4	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS6	Digester #3	SLUDGE DIGESTER #3 CONTROLLED BY FLARE #2	Normal - Steady State	E5	CD5 (P)	PT5	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS7	Digester #4	SLUDGE DIGESTER #4 CONTROLLED BY FLARE #1	Normal - Steady State	E6	CD4 (P)	PT4	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS8	Digester #4	SLUDGE DIGESTER #4 CONTROLLED BY FLARE #2	Normal - Steady State	E6	CD5 (P)	PT5	5-01-007-89	0.0	5,000.0		0.0	300.0	60.0	100.0
OS9	SST #1-1	SLUDGE STORAGE TANK #1 CONTROLLED BY FLARE #1	Normal - Steady State	E57	CD4 (P)	PT4	5-01-007-89	0.0	8,760.0	A	0.0	100.0	60.0	100.0
OS10	SST #1-2	SLUDGE STORAGE TANK #1 CONTROLLED BY FLARE #2	Normal - Steady State	E57	CD5 (P)	PT5	5-01-007-89	0.0	8,760.0	A	0.0	100.0	60.0	100.0
OS11	SST #2-1	SLUDGE STORAGE TANK #2 CONTROLLED BY FLARE #1	Normal - Steady State	E58	CD4 (P)	PT4	5-01-007-89	0.0	8,760.0	A	0.0	100.0	60.0	100.0
OS12	SST #2-2	SLUDGE STORAGE TANK #2 CONTROLLED BY FLARE #2	Normal - Steady State	E58	CD5 (P)	PT5	5-01-007-89	0.0	8,760.0	A	0.0	100.0	60.0	100.0

JOINT MEETING OF ESSEX & UNION CNTYS (41813)
BOP180002

Date: 8/16/2023

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

U 12 Pugmills Pugmills # 1 and # 2

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	TWO CENTRIFUGES TO ONE OF TWO PUGMILLS	Normal - Steady State	E14		PT121	3-01-999-98		8,760.0		500.0	1,490.0	65.0	120.0
OS2	OS2	TWO CENTRIFUGES TO ONE OF TWO PUGMILLS	Normal - Steady State	E15		PT122	3-01-999-98		8,760.0		500.0	1,490.0	65.0	120.0
OS3	OS3	TWO CENTRIFUGES TO TWO PUGMILLS	Normal - Steady State	E14		PT121	3-01-999-98		8,760.0		500.0	1,490.0	65.0	120.0
OS4	OS4	TWO CENTRIFUGES TO TWO PUGMILLS	Normal - Steady State	E15		PT122	3-01-999-98		8,760.0		500.0	1,490.0	65.0	120.0

U 13 Sludge Tnks Two 6,490 cu ft Liquid Sludge Storage Tanks

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours		VOC Range	Flow (acfm)		Temp. (deg F)	
								Min.	Max.		Min.	Max.	Min.	Max.
OS1	OS1	Liquid Sludge Storage Tank EF-21	Normal - Steady State	E16		PT13	4-07-999-99		8,760.0		760.0	840.0	65.0	75.0
OS2	OS2	Liquid Sludge Storage Tank EF-22	Normal - Steady State	E17		PT13	4-07-999-99		8,760.0		760.0	840.0	65.0	75.0

JOINT MEETING OF ESSEX & UNION CNTYS (41813)
BOP180002

Date: 8/16/2023

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

U 16 Kwnee Blrs. Two 5.23 MMBTU/hr NG/FO boilers

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	NATURAL GAS - Boiler #1	Normal - Steady State	E19		PT16	1-03-006-02		8,760.0		3,180.0	3,240.0	310.0	345.0
OS2	OS2	# 2 FUEL OIL - Boiler #1	Normal - Steady State	E19		PT16	1-03-006-02		8,760.0		3,180.0	3,240.0	310.0	345.0
OS3	OS3	NATURAL GAS - Boiler #2	Normal - Steady State	E20		PT16	1-03-006-02		8,760.0		3,180.0	3,240.0	310.0	345.0
OS4	OS4	# 2 FUEL OIL - Boiler #2	Normal - Steady State	E20		PT16	1-03-006-02		8,760.0		3,180.0	3,240.0	310.0	345.0

U 18 Lime Eqp. 4600 cu ft Lime Storage Silo controlled by Baghouse CD3

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	TYPICAL - Lime Storage Silo - LS-1	Normal - Steady State	E23	CD3 (P)	PT18	3-01-999-98		8,760.0		950.0	1,050.0	70.0	80.0

JOINT MEETING OF ESSEX & UNION CNTYS (41813)
BOP180002

Date: 8/16/2023

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

U 19 Cen Wetwell 731 gal/min centrate wetwell

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	TYPICAL - Centrate Wetwell CP-1	Normal - Steady State	E26		PT19	3-01-999-98		8,760.0		50.0	105.0	50.0	85.0

U 20 Centrifuges Three Centrifuges cumulative 420 gal/min

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	Centrifuge 1	CENTRIFUGE 1	Normal - Steady State	E27		PT201 PT202	3-01-999-98		8,760.0		48.0	230.0	55.0	80.0
OS2	Centrifuge 2	CENTRIFUGE 2	Normal - Steady State	E28		PT211 PT212			8,760.0		48.0	230.0	55.0	80.0
OS3	Centrifuge 3	CENTRIFUGE 3	Normal - Steady State	E29		PT221 PT222			8,760.0		48.0	230.0	55.0	80.0

JOINT MEETING OF ESSEX & UNION CNTYS (41813)
BOP180002

Date: 8/16/2023

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

U 25 Dewatering Dewatering Facility

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	INCLINED SCREW CONVEYOR 1	Normal - Steady State	E35		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS2	OS2	INCLINED SCREW CONVEYOR 2	Normal - Steady State	E36		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS3	OS3	INCLINED SCREW CONVEYOR 3	Normal - Steady State	E37		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS4	OS4	REVERSING BELT CONVEYOR 1	Normal - Steady State	E38		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS5	OS5	REVERSING BELT CONVEYOR 2	Normal - Steady State	E39		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS6	OS6	INCLINED SCREW CONVEYOR 4	Normal - Steady State	E40		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS7	OS7	INCLINED SCREW CONVEYOR 5	Normal - Steady State	E41		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS8	OS8	METERING BELT CONVEYOR 1	Normal - Steady State	E42		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS9	OS9	METERING BELT CONVEYOR 2	Normal - Steady State	E43		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS10	OS10	BELT CONVEYOR 1	Normal - Steady State	E44		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS11	OS11	BELT CONVEYOR 2	Normal - Steady State	E45		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS12	OS12	REVERSING BELT CONVEYOR 3	Normal - Steady State	E46		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS13	OS13	REVERSING BELT CONVEYOR 4	Normal - Steady State	E47		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS14	OS14	STABILIZED SLUDGE BIN 1	Normal - Steady State	E48		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0
OS15	OS15	STABILIZED SLUDGE BIN 2	Normal - Steady State	E49		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0

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Emission Unit/Batch Process Inventory

U 25 Dewatering Dewatering Facility

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.
OS16	OS16	STABILIZED SLUDGE BIN 3	Normal - Steady State	E50		PT23	3-01-999-98	6,000.0	8,760.0		5,541.0	5,833.0	65.0	80.0

U 31 Dryer 2 Indirect 33.4 Dry Ton/day Sludge Dryer #2

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	Dryer 2 - normal operation - Natural gas	Normal - Steady State	E51	CD11 (P) CD12 (P) CD13 (S) CD14 (T)	PT31	3-01-999-98	0.0	8,760.0	A	5,480.0	6,150.0	350.0	460.0

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U 32 **Dryer 3 Indirect 33.4 Dry Ton/day Sludge Dryer #3**

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	Dryer 3	Dryer 3 - normal operation - Natural gas	Normal - Steady State	E52	CD15 (P) CD16 (P) CD17 (S) CD18 (T)	PT32	3-01-999-98	0.0	8,760.0	A	5,480.0	6,150.0	350.0	460.0

U 33 **Dryer 1 Indirect 33.4 Dry Ton/day Sludge Dryer #1**

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	Dryer 1	Dryer 1 - normal operation - Natural gas	Normal - Steady State	E53	CD19 (P) CD20 (P) CD21 (S) CD22 (T)	PT33	3-01-999-98	0.0	8,760.0	A	5,480.0	6,150.0	350.0	460.0

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U 34 Prs wetwell Process Drain Lift Station Wet Well

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	TYPICAL	Normal - Steady State	E54		PT34	3-01-999-98		8,760.0		33.0	35.0	65.0	80.0

U 37 Wst Gas Brn Two Sludge Storage Tanks controlled by 12 MMBTU/hr Flare CD7

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	Sludge Storage Tank #1	Normal - Steady State	E57	CD7 (P)	PT37	1-03-006-02		8,760.0		498.0	550.0	1,140.0	1,260.0
OS2	OS2	Sludge Storage Tank #2	Normal - Steady State	E58	CD7 (P)	PT37	1-03-006-02		8,760.0		498.0	550.0	1,140.0	1,260.0

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Emission Unit/Batch Process Inventory

U 40 Transfer Sta 500 lb/hr Sludge Transfer Station

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	TYPICAL	Normal - Steady State	E61	CD8 (P)	PT40	3-01-999-98		8,760.0		479.0	529.0	65.0	80.0

U 41 Pellet Sys Pelletization System Controlled by Bahouses

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	Hopper 1	2,783 Lb/hr Roll Compactor Hopper 1 (E62) Controlled by Baghouse CD9	Normal - Steady State	E62	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS2	Hopper 2	2,783 Lb/hr Roll Compactor Hopper 2 (E63) Controlled by Baghouse CD9	Normal - Steady State	E63	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS3	Hopper 3	2,783 Lb/hr Roll Compactor Hopper 3 (E64) Controlled by Baghouse CD9	Normal - Steady State	E64	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS4	Compactor 1	2,783 Lb/hr Roll Compactor 1 (E65) Controlled by Baghouse CD9	Normal - Steady State	E65	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0

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Emission Unit/Batch Process Inventory**

U 41 Pellet Sys Pelletization System Controlled by Bahouses

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.
OS5	Compactor 2	2,783 Lb/hr Roll Compactor 2 (E66) Controlled by Baghouse CD9	Normal - Steady State	E66	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS6	Compactor 3	2,783 Lb/hr Roll Compactor 3 (E67) Controlled by Baghouse CD9	Normal - Steady State	E67	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS7	Screen 1	2,783 Lb/hrVibrating Screen 1 (E68) Controlled by Baghouse CD9	Normal - Steady State	E68	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS8	Screen 2	2,783 Lb/hrVibrating Screen 2 (E69) Controlled by Baghouse CD9	Normal - Steady State	E69	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS9	Screen 3	2,783 Lb/hrVibrating Screen 3 (E70) Controlled by Baghouse CD9	Normal - Steady State	E70	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS10	Transptr 1	2,783 lb/hr Surge Hopper Transporter 1 (E71) Controlled by Baghouse CD9	Normal - Steady State	E71	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS11	Transptr 2	2,783 lb/hr Surge Hopper Transporter 2 (E72) Controlled by Baghouse CD9	Normal - Steady State	E72	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS12	Transptr 3	2,783 lb/hr Surge Hopper Transporter 3 (E73) Controlled by Baghouse CD9	Normal - Steady State	E73	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS13	Silo 1	5,000 CF Bulk Storage Silo 1 (E74) Controlled by Baghouse CD9	Normal - Steady State	E74	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0

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Emission Unit/Batch Process Inventory

U 41 Pellet Sys Pelletization System Controlled by Bahouses

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.
OS14	Silo 2	5,000 CF Bulk Storage Silo 2 (E75) Controlled by Baghouse CD9	Normal - Steady State	E75	CD9 (P)	PT41	3-01-999-98		8,760.0		3,230.0	3,570.0	65.0	80.0
OS15	Trk Spout 1	40,000 lb/hrTruck Load Spout 1 (E76) Controlled by Baghouse CD10	Normal - Steady State	E76	CD10 (P)	PT41	3-01-999-98		1,000.0		3,230.0	3,570.0	65.0	80.0
OS16	Trk Spout 2	40,000 lb/hrTruck Load Spout 2 (E77) Controlled by Baghouse CD10	Normal - Steady State	E77	CD10 (P)	PT41	3-01-999-98		1,000.0		3,230.0	3,570.0	65.0	80.0

U 42 GBTs Gravity Belt Thickener System

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	Gravity Belt Thickener No. 1	Normal - Steady State	E78		PT42		7,884.0	8,760.0		4,500.0	5,500.0	20.0	105.0
OS2	OS2	Gravity Belt Thickener No. 2	Normal - Steady State	E79		PT42		7,884.0	8,760.0		4,500.0	5,500.0	20.0	105.0
OS3	OS3	Gravity Belt Thickener No. 3	Normal - Steady State	E80		PT42		7,884.0	8,760.0		4,500.0	5,500.0	20.0	105.0
OS4	OS4	Filtrate Well	Normal - Steady State	E81		PT42		7,884.0	8,760.0		337.5	412.5	20.0	105.0
OS5	OS5	Cake Well No. 1	Normal - Steady State	E82		PT42		7,884.0	8,760.0		337.5	412.5	20.0	105.0

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U 42 GBTs Gravity Belt Thickener System

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	OS6	Cake Well No. 2	Normal - Steady State	E83		PT42		7,884.0	8,760.0		337.5	412.5	20.0	105.0
OS7	OS7	Cake Well No. 3	Normal - Steady State	E84		PT42		7,884.0	8,760.0		337.5	412.5	20.0	105.0

U 43 Cogen Six 9.3 MMBtu/hr NG/DG RICE Engines

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	RICE 1 Dig	RICE Engine 1 Digester Gas	Normal - Steady State	E4301	CD4301 (P)	PT4301	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0
OS2	RICE 2 Dig	RICE Engine 2 Digester Gas	Normal - Steady State	E4302	CD4302 (P)	PT4302	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0
OS3	RICE 4 Dig	RICE Engine 4 Digester Gas	Normal - Steady State	E4303	CD4303 (P)	PT4303	2-03-007-02	0.0	8,760.0		3,400.0	5,500.0	350.0	833.0
OS4	RICE 5 Dig	RICE Engine 5 Digester Gas	Normal - Steady State	E4304	CD4304 (P)	PT4304	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0
OS5	Rice 3 DG	Rice Engine 3 Digester Gas	Normal - Steady State	E4305	CD4305 (P)	PT4305	2-02-007-02	0.0	7,500.0		3,300.0	5,800.0	350.0	932.0
OS6	Rice 6 DG	Rice Engine 6 Digester Gas	Normal - Steady State	E4306	CD4306 (P)	PT4306	2-02-007-02	0.0	7,500.0		3,300.0	5,800.0	350.0	932.0
OS7	RICE 1 NG	RICE Engine 1 Natural Gas	Normal - Steady State	E4301	CD4301 (P)	PT4301	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0

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U 43 Cogen Six 9.3 MMBtu/hr NG/DG RICE Engines

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.
OS8	RICE 2 NG	RICE Engine 2 Natural Gas	Normal - Steady State	E4302	CD4302 (P)	PT4302	2-03-007-02	0.0	8,760.0		3,400.0	5,500.0	350.0	833.0
OS9	RICE 4 NG	RICE Engine 4 Natural Gas	Normal - Steady State	E4303	CD4303 (P)	PT4303	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0
OS10	RICE 5 NG	RICE Engine 5 Natural Gas	Normal - Steady State	E4304	CD4304 (P)	PT4304	2-03-007-02	0.0	8,760.0		3,300.0	5,800.0	350.0	932.0
OS11	Rice 3 NG	Rice Engine 3 Natural Gas	Normal - Steady State	E4305	CD4305 (P)	PT4305	2-02-002-02	0.0	7,500.0		3,300.0	5,800.0	350.0	932.0
OS12	Rice 6 NG	Rice Engine 6 Natural Gas	Normal - Steady State	E4306	CD4306 (P)	PT4306	2-02-002-02	0.0	7,500.0		3,300.0	5,800.0	350.0	932.0
OS13	Explos1	Explosion Relief Scenario - RICE Engine #1	Malfunction	E4301		PT4307	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0
OS14	Explos2	Explosion Relief Scenario - RICE Engine #2	Malfunction	E4302		PT4308	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0
OS15	Explos4	Explosion Relief Scenario - RICE Engine #4	Malfunction	E4304		PT4309	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0
OS16	Explos5	Explosion Relief Scenario - RICE Engine #5	Malfunction	E4305		PT4310	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0
OS17	Explos3	Explosion Relief Scenario - RICE Engine #3	Malfunction	E4305		PT4311	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0
OS18	Explos6	Explosion Relief Scenario - RICE Engine #6	Malfunction	E4306		PT4312	2-03-007-02	0.0	1.0		5,000.0	9,000.0	1,000.0	2,000.0

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

U 44 P&O/New Lab Two FO Emergency Generators

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	EGP&OBldg	230 KW Emergency Generator - P&O Bldg	Normal - Steady State	E4401		PT44		25.0	50.0		500.0	800.0	500.0	1,100.0
OS2	EGNewLab	275 KW Emergency Generator - New Lab	Normal - Steady State	E4402		PT44 PT45		25.0	50.0		1,600.0	2,200.0	700.0	1,100.0

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

Group NJID: GR1 HAP Cap

Members:

Type	ID	OS	Step
IS	IS9		
U	U 3	OS0 Summary	
U	U 31	OS0 Summary	
U	U 32	OS0 Summary	
U	U 33	OS0 Summary	
U	U 37	OS0 Summary	
U	U 43	OS0 Summary	

Formal Reason(s) for Group/Cap:

☒ Avoid being subject to the reqts of MACT standards

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

Operating Circumstances:

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Group NJID: GR2 Flare Cap

Members:

Type	ID	OS	Step
U	U 2	OS0 Summary	
U	U 37	OS0 Summary	
U	U 4	OS0 Summary	

Formal Reason(s) for Group/Cap:

☒ Other

Other (explain):

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

Operating Circumstances:

New Jersey Department of Environmental Protection
Subject Item Group Inventory

Group NJID: GR3 EJ

Members:

Type	ID	OS	Step
FG	FG0		
IS	IS0		
U	U 1	OS0 Summary	
U	U 12	OS0 Summary	
U	U 13	OS0 Summary	
U	U 16	OS0 Summary	
U	U 18	OS0 Summary	
U	U 19	OS0 Summary	
U	U 2	OS0 Summary	
U	U 20	OS0 Summary	
U	U 25	OS0 Summary	
U	U 3	OS0 Summary	
U	U 31	OS0 Summary	
U	U 32	OS0 Summary	
U	U 33	OS0 Summary	
U	U 34	OS0 Summary	
U	U 37	OS0 Summary	
U	U 4	OS0 Summary	
U	U 40	OS0 Summary	
U	U 41	OS0 Summary	
U	U 42	OS0 Summary	
U	U 43	OS0 Summary	
U	U 44	OS0 Summary	

Formal Reason(s) for Group/Cap:

☒ Other

Other (explain): EJ Special Conditions

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Subject Item Group Inventory**

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

Operating Circumstances: